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BLUE JAY

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COVERS: **Front** - Long-billed Curlews near Valley Centre, SK.
Photograph by George Tosh.

Back - White-breasted Nuthatch. Watercolour, 1981. W. Ray Salt.

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EDITORS' MESSAGE

At times it is hard to feel optimistic about the future of the natural world around us.

What gives us hope is that many people care enough about nature to share with others what they know or have experienced. This unites people with an interest in the natural history of a region such as ours. *Blue Jay* plays a role in this by providing a forum for sharing information which enriches others in the community.

Aside from being a truly regional publication in this sense, *Blue Jay* is unique in several other ways : the breadth of natural history topics it covers, the variety of the articles it publishes and the diversity of its readership and authorship. *Blue Jay*'s mandate is to encourage interest in, and reporting of, all aspects of natural history and to present a range of treatments from scientific studies to individual observations and encounters.

For us, these unique features make the work of editing both interesting and worthwhile. We thrive on the diversity and greatly enjoy the variety of topics, writing styles and approaches. In short, we wouldn't want things any other way.

In last year's editorial, we encouraged all readers to become writers and the response to this has been good as we have received excellent submissions from a number of new writers. This year we especially encourage more members of the scientific community to write for *Blue Jay*. We know interesting and important work is being done in the prairie region that keenly interested residents (and ex-residents) would like to know about. And we feel strongly that the community of naturalists is strengthened by professionals writing for amateurs and vice versa.

We want to thank everyone for their willing and capable help in the production of *Blue Jay* this past year – contributors, reviewers and associate editors, index compiler, proofreaders and printing staff. That so many people take the time and trouble to contribute is heartening. It also ensures the continued existence of this unusual little magazine deeply rooted in the prairie region.

Anna and Ted Leighton, Editors

BIRDS

SPECIMEN RECORDS AND SIGHTINGS OF ANCIENT MURRELETS FROM THE CANADIAN PRAIRIE PROVINCES

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Introduction

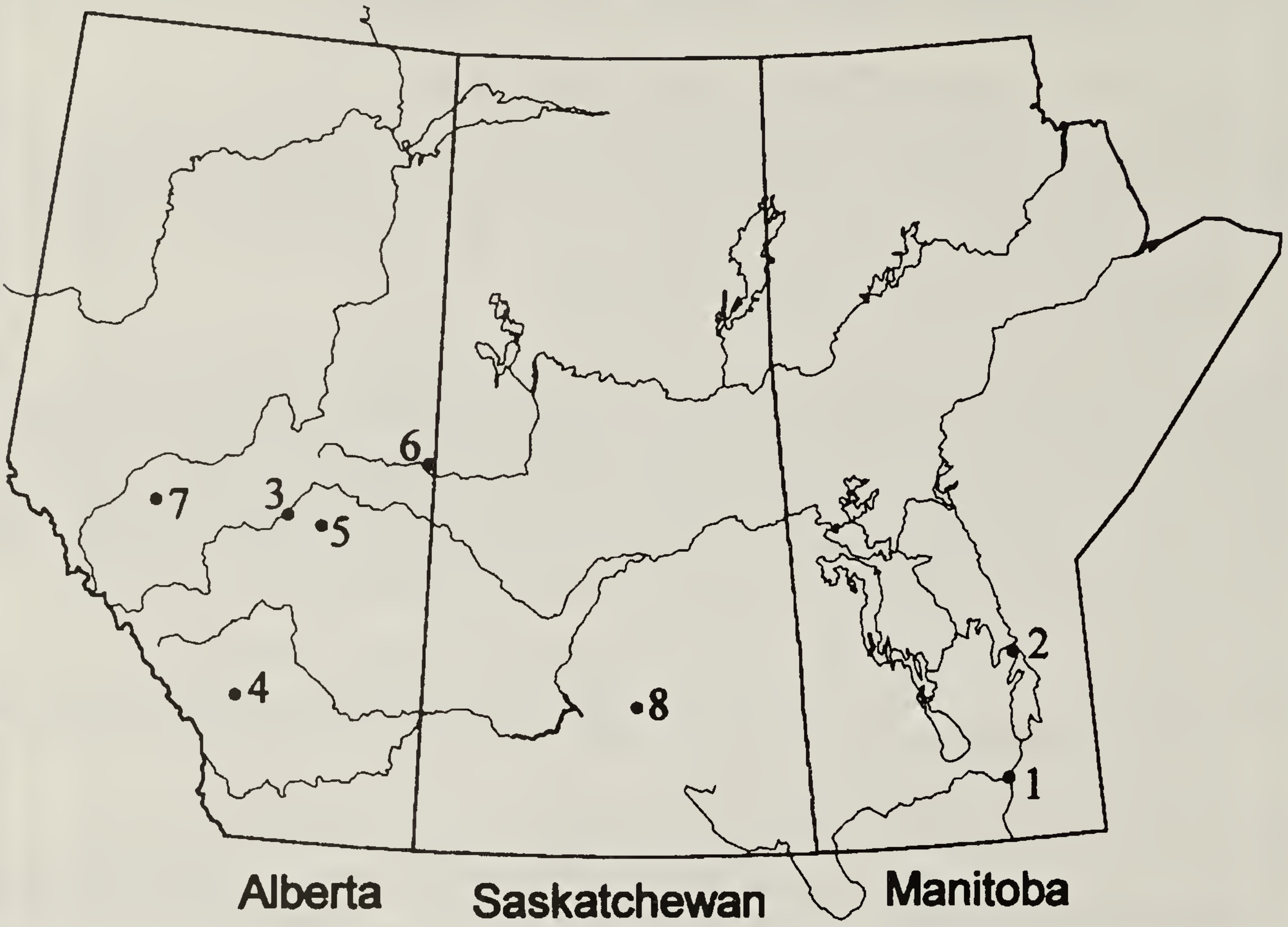
The Ancient Murrelet is one of the most vagrant-prone species in the avian family Alcidae, the auks.[10] Ancient Murrelets nest on both sides of the North Pacific Ocean, from China to Russia, and Alaska to British Columbia.[1,23] Individuals occasionally occur in the interior of North America, sometimes thousands of kilometres from the Pacific Ocean. Since the early 1880s, nearly 100 records of the Ancient Murrelet have been reported at localities across Canada and the United States,[15,18,19,24] and one individual was present for several months off the coast of Great Britain.[25] Eight of these records are from the prairie provinces of Canada: five from Alberta (2 specimens, 3 sightings), one sighting from Saskatchewan, and two specimens from Manitoba. Four of the records are documented here, new information is provided for the other four, and the circumstances surrounding the occurrences of Ancient Murrelets in this region are examined. The records are detailed below in chronological order. Their numbers correspond to the location of recovery or sighting shown in Fig. 1. The specimens are housed in the collections of the Manitoba Museum of Man and Nature (MMMN) and the Provincial Museum of Alberta (PMA).

Specimens and Sight Records

1. 8 October 1953 (MMMN 2252): A bird was found by W. Sutherland dying on a street in the Winnipeg suburb of St. James, Manitoba.[16,24] The emaciated specimen was collected by the late A.G. Lawrence and presented to the Manitoba Museum of Man and Nature. Not sexed, the bird is in juvenal plumage, i.e. hatching-year (Fig. 2, upper), with new remiges (flight feathers) and contour feathers and no white crest feathers on the crown. Insect damage to the secondaries, wing coverts (particularly on the right wing), and feathers of the rump of this specimen should not be interpreted as extreme feather wear.

2. "Autumn" 1975 (MMMN 1.2-3398): Manitoba's second specimen was a hatching-year female (Fig. 2, lower) that drowned in a commercial fishing net set offshore near Pine Dock on the west side of Lake Winnipeg.[11] Collected by Dave Stevens (or Stephens), the bird's remiges and contour feathers are new and there are no white crest feathers

Figure 1. Locations of specimens collected and sightings recorded of Ancient Murrelets in Alberta, Saskatchewan, and Manitoba. Numbers correspond to the description of the record given in the text.



visible on the crown. The bird, including fish remains in its digestive tract, weighed 234.5 g, a total mass about 25 g higher than the mean breeding-season weights of adults[17] and recently fledged juveniles,[20] but close to the mean weight of adults in late fall.[9] This bird may have survived for some time on Lake Winnipeg or another body of fresh water. The brown tipped feathers on the shoulders, sides and flanks, typical of juveniles shortly after the "at-sea" rearing period from July through September,[8] had worn off. This suggests the bird was captured toward the end of September, or later.

3. 25 October 1975 (PMA Z75.92.1): An Ancient Murrelet was captured on the shore of the North Saskatchewan River, about 400 m west of the Clover Bar landfill in Edmonton, Alberta, and died a few hours later. It was deposited in the Provincial Museum of Alberta.[26] The bird was a male in breeding (alternate) plumage (Fig. 3, lower), but with a few white feathers interspersed among the black feathers of the chin and throat. A few minute white crest feathers are visible above and behind the eyes. Body mass was 122 g, which is about 75 g below the mean mass of breeding adults.[17]

4. 17-20 October 1982: The first of three sight records in Alberta was made on the Glenmore Reservoir near Calgary.[27] It was noted (p. 49) that "the bird seemed in good health, flying back and forth to other locations on the reservoir hundreds of metres away. It also dived..., occasionally surfacing with a small fish in its bill."[27] The bird cannot be aged with certainty from the three published photographs,[12,27] but the dark feathers apparently restricted to the chin and white throat suggest it was in juvenal plumage. This condition is supported

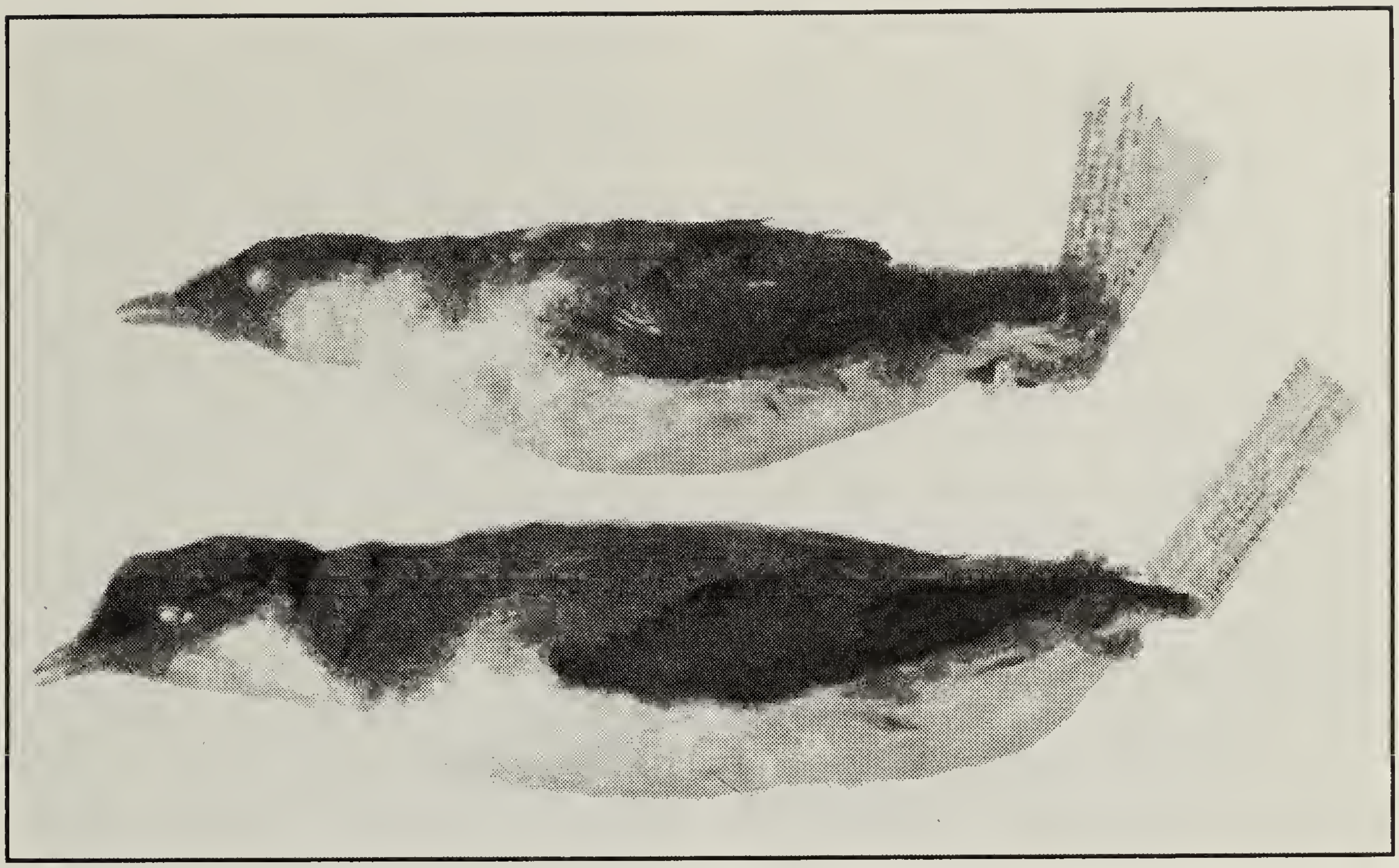


Figure 2. Ancient Murrelet specimens from Manitoba: upper—juvenile, unsexed, Winnipeg, 8 October 1953 (MMMN 2252, originally 2702); lower—juvenile female, Lake Winnipeg, autumn, 1975 (MMMN 1.2-3398). (Note: the difference in size of the specimens is an artifact of preparation.)

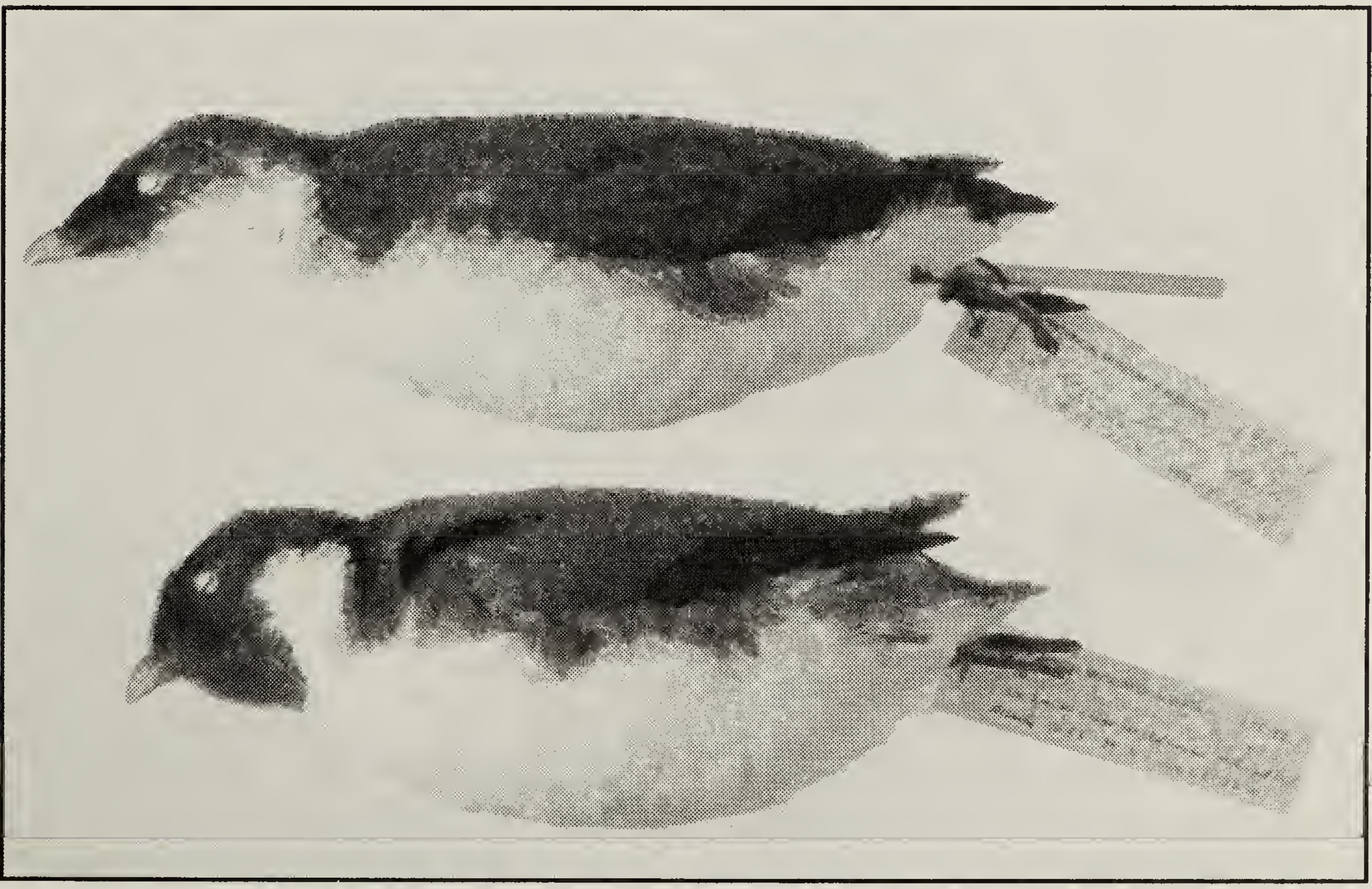


Figure 3. Ancient Murrelet specimens from Alberta: upper—juvenile female, Edson, 29 September 1994 (PMA Z95.5.1); lower—adult male, North Saskatchewan River, 25 October 1975 (PMA Z75.92.1).

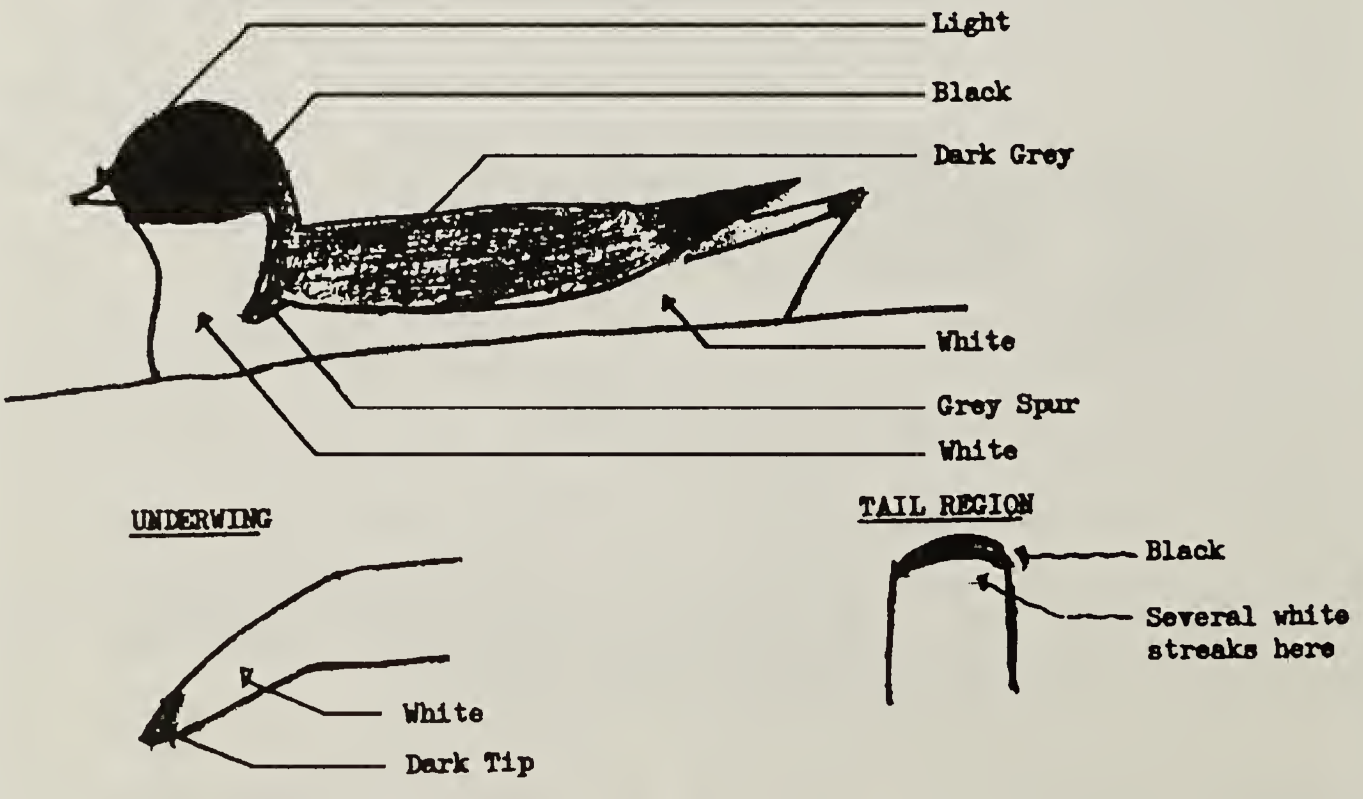
by a detailed field description of the bird filed at the Provincial Museum of Alberta by Doug Collister and John B. Steeves (S. Holohan, letter 15 January 1983), accompanied by Steeves' field sketch (Fig. 4), which shows a dark chin and white throat. Also filed at the PMA were three other descriptions of the bird made from about 15 m away, submitted by Victor Maltby, Stuart Johnston (accompanied by a sketch), and A. C. Slater. Johnston's description and sketch, and Maltby's description indicated a dark chin and white throat, whereas Slater did not note the colour of these regions.

5. 2 October 1983: Dick Dekker recorded a single bird at several places on Beaverhill Lake, east of Edmonton, Alberta.[4] It was identified as it flew by many times, albeit at considerable distances. Eventually, the bird was observed from 15 m to 30 m away. In addition to features of the plumage, bill and feet, Dekker noted the black chin and throat, which suggests an after-hatching-year plumage. The bird dived frequently and appeared to be in good condition.

6. 18 September 1988: For about two hours, Richard Klauke observed and videotaped an Ancient Murrelet at Centre Bay on Cold Lake, Cold Lake Provincial Park, near the Alberta-Saskatchewan border. Klauke reported to Jocelyn Hudon that the bird "dived repeatedly". The limited extent of black on the throat, although not clearly visible in Fig. 5, suggests a juvenile.

7. 29 September 1994 (PMA Z95.5.1): A hatching-year female was found dead at Edson, Alberta, in the eastern foothills of the Rocky Mountains. The plumage is new and unworn. A few minute white crest feathers are visible above and behind the eyes (Fig. 3, upper). Feathers on the shoulders and sides are tipped with brown. The bird weighed 144.5 g, which is about 55 g below that of recently independent juveniles.[20]

Figure 4. Sketch of Ancient Murrelet observed on Glenmore Reservoir near Calgary, 17-20 October 1982; the white throat is evident (sketch by John B. Steeves).



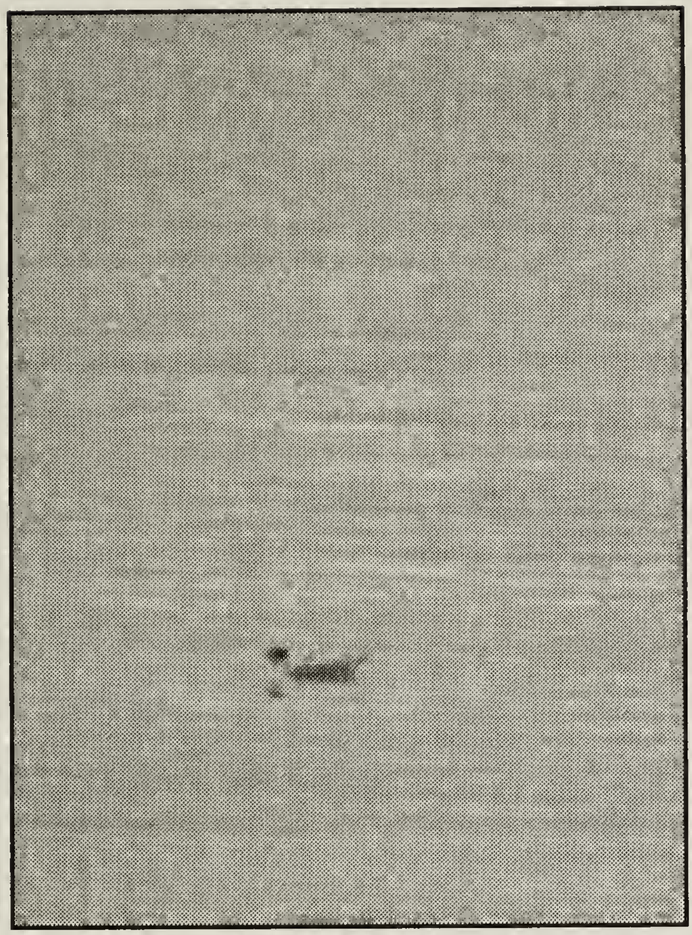


Figure 5. Ancient Murrelet observed on 18 September 1988 at Centre Bay, Cold Lake, Alberta (photograph by Richard Klauke).

8. 13 November 1998: A single bird was observed by Bob Kreba and Curtis Pollock at Last Mountain Lake, Saskatchewan.[13] Kreba suspected the bird was an immature (p. 47) "...based on the restricted amount of black on the chin." This is the first record of the Ancient Murrelet for the province of Saskatchewan, but because there is no specimen, identifiable photograph, or recognizable tape recording, the species will be regarded as of hypothetical occurrence.

Discussion

The vagrants

The recovery of the first specimen (no. 3) and the third sighting (no. 5) from Alberta are two of the few after-hatching-year Ancient Murrelets recorded in the interior of North America.[18,19] The other records from the Canadian prairie provinces were or were suspected of being juveniles, as were most of the other Ancient Murrelets recorded inland.[19] Juveniles have outnumbered adults in other samples of seabirds that have moved beyond the normal limits of their ranges. Most of the hundreds of Thick-billed Murres collected during periodic incursions into the Great Lakes region between 1890 and 1952 were juveniles.[7] Each of these movements involved large numbers of birds, whereas the movements inland of Ancient Murrelets generally have involved individuals.[15,19,24]

Post-breeding movements and timing of vagrancy

In coastal British Columbia, adult Ancient Murrelets accompanied by their newly hatched chicks, leave their nesting colonies in late May and June, and rear the chicks at sea for several weeks.[6,17] Young are first seen alone in July.[20] Numbers begin building up south of the breeding colonies, from Vancouver Island to coastal California, in late October and early November.[2,9] This suggests that many individuals move southward well after nesting, after the molt is complete. But the whereabouts of the birds prior to this, while they are molting, and flightless, is a mystery. A.J. Gaston speculated that after the breeding season Ancient Murrelets may be carried by offshore currents from the Queen Charlotte Islands northwestward into the Gulf of Alaska, and a northward dispersal at this time may be a regular part of the annual schedule of Ancient Murrelets.[8] Whether some or all of these birds would winter in the Gulf of Alaska, or eventually move south to Vancouver Island and the coastal waters of the United States is conjecture.

Vagrancy of Ancient Murrelets generally coincides with the movements to wintering areas in late summer and fall, and possibly also with movements away from these areas in spring.[15,24]

Occurrences in the Canadian prairie provinces have been recorded from 18 September (record no. 6 above) to 13 November (no. 8); two records (no. 2 and no. 3) were from 1975. The October 8 date of the 1953 Manitoba specimen (no. 1) was considered unusually early compared to other records reported before that year from the interior of North America.[16] Indeed, most inland occurrences known to 1966 fell into two periods, late October-November and March.[15,18,19,24] This trend has continued since 1966, but other specimens and sightings have been recorded inland in August and September, including the sighting from Cold Lake on 18 September (no. 6) and specimens from British Columbia, Idaho, and Washington.[3,5]

Origin of vagrants

E.D. Munyer believed that during spring and fall migrations some Ancient Murrelets drifted southeast as a result of strong northwesterly winds coupled with conditions of poor visibility along the coast.[15] The eight records from the Canadian prairie provinces suggest such eastward movements, which may have been related to specific weather encountered en route. Indeed, the 1975 Alberta and Manitoba records (no. 3 and no. 2 on Fig. 1) form nearly a straight line from west to east. Strong westerly winds apparently preceded the bird's arrival in Alberta,[26] but the date of arrival of the bird in Manitoba is not known precisely.

Ancient Murrelets found in the interior of North America may have travelled from distant breeding areas in western Alaska or even Asia, although the largest breeding populations occur in the Queen Charlotte Islands, off the mainland coast of British Columbia.[23] Long-distance movements of another alcid, the Long-billed Murrelet, from the northeast coast of Asia to the coast and interior of North America, have been recorded regularly since the late 1970s, but still it is debated whether these movements were associated with anomalous weather patterns, the Aleutian Low, and/or El Niño or La Niña conditions.[14,21,22] Occurrences of Ancient Murrelets in the interior of North America, on the other hand, date back more than 100 years, although the number of records, particularly sightings, has increased in recent decades.[19] Continued scrutiny of sightings and recovery of specimens of Ancient Murrelets and other seabirds, in the interior of North America and elsewhere, should clarify patterns of vagrancy.

Acknowledgements

Herb Copland, Jack Dubois, and Janis Klapecki provided support and information, and loaned specimens under their care in the Manitoba Museum of Man and Nature. Rob Barrow photographed the specimens. Stuart Holohan provided a copy of a description and sketch by Dr. John B. Steeves of the Ancient Murrelet observed in Alberta, in 1982. Steeves permitted his sketch to be reproduced. Richard Klauke provided a photograph and details of his unpublished sight record from Alberta (deposited in the Provincial Museum of Alberta), and Bob Kreba (Royal Saskatchewan Museum, Regina) provided additional details of the sighting in Saskatchewan. We thank A. J. Gaston and an anonymous reviewer for technical and editorial comments on the manuscript. This work was supported by grants to S. G. Sealy from the Natural Sciences and Engineering Research Council of Canada.

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◆

POWER POLES ASSIST RANGE EXPANSION OF OSPREYS IN SASKATCHEWAN

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In eastern North America, Ospreys have built nests on man-made platforms, towers, and duck-hunting blinds since at least 1881.[3] Use of power utility structures is much more recent.[5] In southern Ontario, wooden double cross-arm poles appeared as early as 1915; there was then a 57-year lag before Ospreys built nests on such poles in the Georgian Bay region, starting with one nest on a pole in 1972 and increasing to nests on 12 poles in 1989.[2] By 1980 every Canadian province except Quebec and Saskatchewan had recorded such events.[1, 3] In Oregon, there was a 20-year lag between building of power poles for electric irrigation pumps and their use by Ospreys; use then increased by leaps and bounds, from 1 pole in 1977 to 66 in 1993.[3]

This paper describes the extension of Osprey breeding range south from boreal forest lakes, their common habitat across most of Canada, into aspen parkland in Saskatchewan. In the late 1980s, Ospreys began to build nests on power poles near Murray and Jackfish lakes, and in 1998 nests were built at two places where power lines crossed the South Saskatchewan river. Power line poles appear to have facilitated both these range extensions and have led to local increases in the Osprey population.

1. High-voltage transmission line east of Murray and Jackfish lakes:

In the late 1980s, local farmers reported that the first Osprey pair nested on top of a power pole along the 138 KV Saskatchewan Power Corporation (SPC) Brada-Glaslyn power line, installed in 1975. By 2000, there were 15 nests built by Ospreys along a 20 km section of transmission line, though one was taken over by a Red-tailed Hawk that year. Each nest had been built on top of one of the poles, 15 to 23 m above ground and about 1.3 m to the inside of one of two active transmission lines (Fig. 1). Except for the most northerly nest, each had a view of either Murray or Jackfish Lake.

In 1999, an aerial check by Frank Scott showed that only two pairs had raised young to fledging. On July 8, SPC Patrolman Ken McComas climbed to both nests and passed down three young from each for Stuart Houston (CSH) to band. Earlier, there had been young in at least some of the other nests; we suspect that starvation or predation by a Great Horned Owl may have caused their demise.

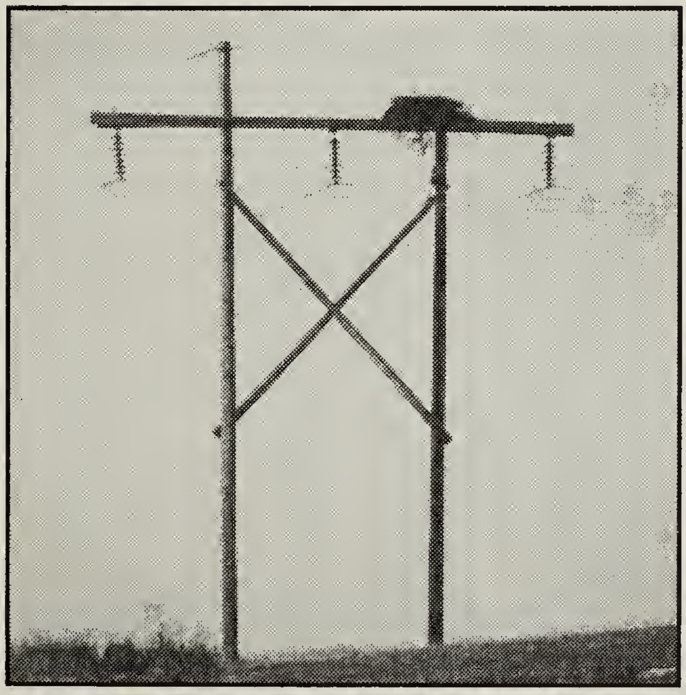


Figure 1. Osprey nest on shortest pair of poles on SPC Brada-Glaslyn power line.

Marten J. Stoffel

In the year 2000, a check from the ground by Ken McComas on May 29 and from the air by Frank Scott on 11 July, revealed that adult Ospreys were present at 12 nests. The southernmost nests were closest to Murray Lake, one nest being only 1 km distant. The most northerly nest was a surprising 10.2 km from Jackfish Lake, and produced only one young. On July 20, each pole with an active nest was nimbly climbed, using spurs and full safety equipment, by Ken McComas who passed the young down to CSH to band. Three nests had 3 young each, two had 2 and two had 1. Young could not be reached in the eighth successful nest, which was five feet deep and probably the first nest built on this line, in the late1980s. One nest with young apparent on July 11 and another with presence of young uncertain when viewed from an airplane, were empty when climbed on July 20, and two other nests with adults present had no visible young at any time.

In 2001, there were ten successful nests. Rain and poor roads prevented a visit to the northernmost nest and young in the deep nest remained unreachable. Ken McComas again climbed the poles and passed down the young; six of the climbed nests contained three young and two contained two, for a total of 22 young banded in 8 nests.

2. High-voltage distribution lines crossing the South Saskatchewan river:

The first known Osprey nests along the South Saskatchewan River were seen in 1998 on local 25 KV power lines, one on the east side of the river east of Rosthern, and the other, about 20 km to the southwest, on the west side of the river east of Hague. Each nest was small, suggesting that it had been used only once.

Unlike the situation on the high-voltage line, both nests were built right on top of live wires; baler twine dangling from one smouldered but did not break into full flame. Since the need to move the nests off the power line was evident, we proposed to SPC that they install a new pole on which we could build a nest platform, about 50 m from the transmission line. On 9 October 1998, Keith Reeder and Ken Morash of SPC planted a 12 m pole 2 m into the ground, immediately west of where the power line crossed the river east of Hague. Martin Gerard built a platform on the new pole, to which Marten Stoffel helped him add the sticks from the former nest, knocked from the powerline the week before (Fig. 2). On 2 February 1999, the nest east of Rosthern was moved onto its new platform (Fig. 3).

Both nests on the new platforms were occupied by Ospreys in April 1999, but the pair east of Hague failed to raise young that year. The pair near Rosthern reared two young which were banded on July 16 by Martin Gerard (Fig. 4). In 2000, the Ospreys returned (Fig. 5) and each of the nests on the riverbank poles produced three young. In 2001, the

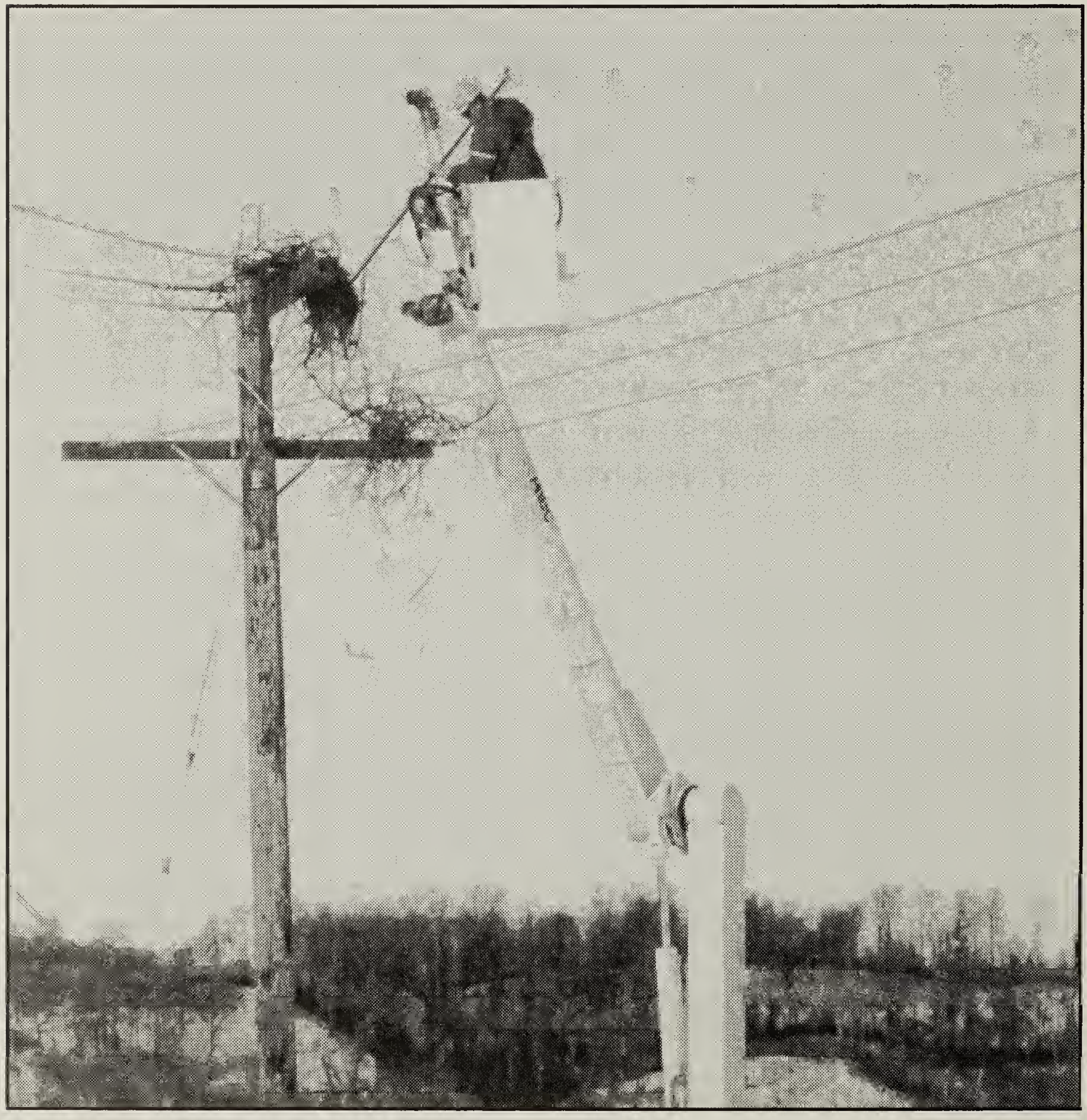


Figure 2 . Keith Reeder knocking down 1998 Osprey nest east of Hague. Richard Marjan. Courtesy The StarPhoenix

Hague nest produced one young and the Rosthern nest two.

The recent range extension of ospreys into the boreal forest - parkland fringe is not confined to power line poles. Osprey nesting activity began at Turtle Lake in west-central Saskatchewan and in the Preeceville area in east-central Saskatchewan.[4] Muriel Carlson (pers. comm.) recorded her first Osprey nest at the north end of Turtle Lake in 1985 and Paul Chartrand (pers. comm.) knew of one nesting pair a few years earlier. During a boat trip around the north half of the lake on June 20, 2000, Muriel Carlson observed at least ten Osprey adults. On 22 July, aided by Kevin and Judy Wilkinson, Muriel took us to three active nests where Paul Gully climbed and banded eight young.

Spin-offs:

1. An increased number of Ospreys has been banded in the last three years. SPC poles provided an additional 8

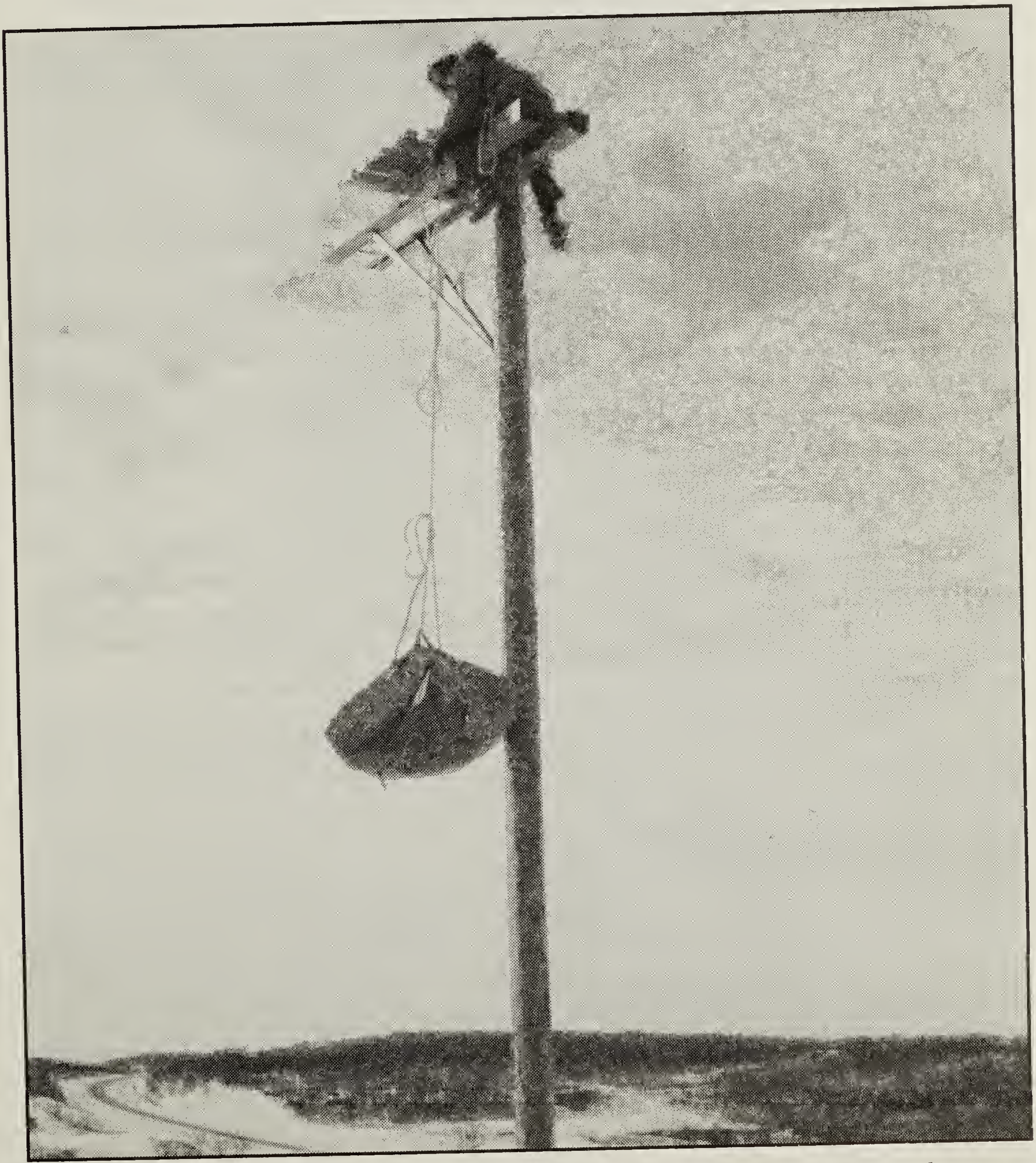


Figure 3. David Miller raising nest contents to platform east of Rosthern.
Richard Marjan. Courtesy The StarPhoenix

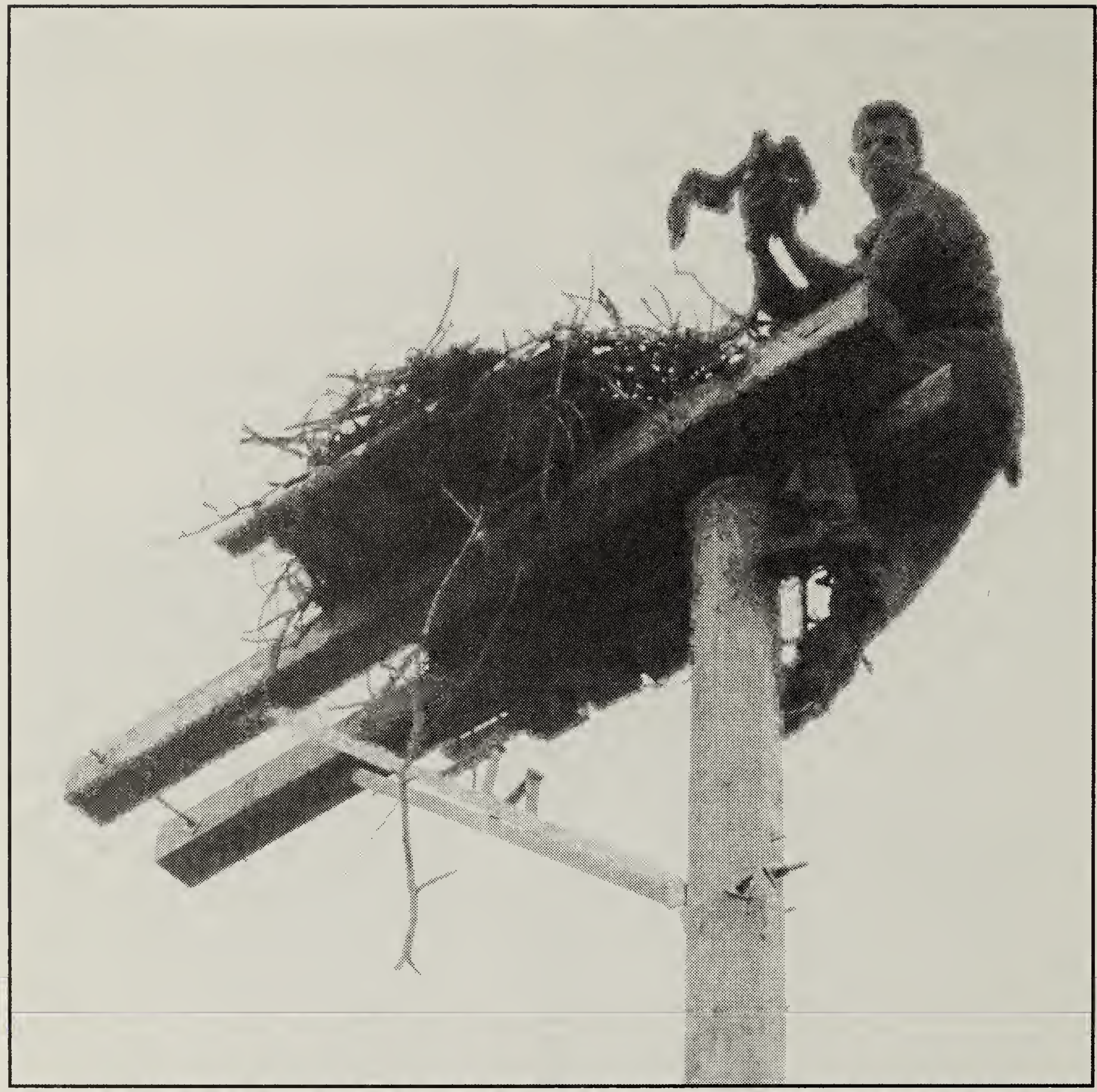


Figure 4. Martin Gerard banding young Ospreys on platform east of Rosthern, 16 July 1999. *Kim McNairn. Courtesy The StarPhoenix*

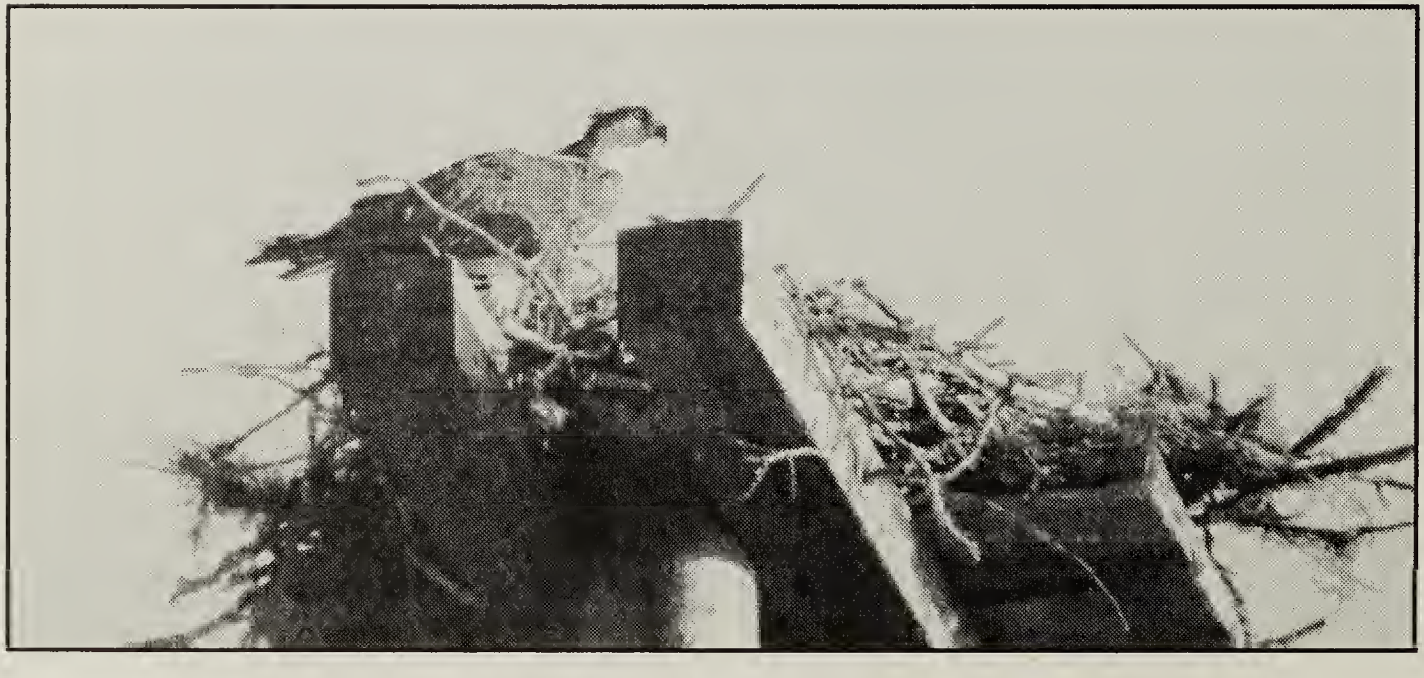
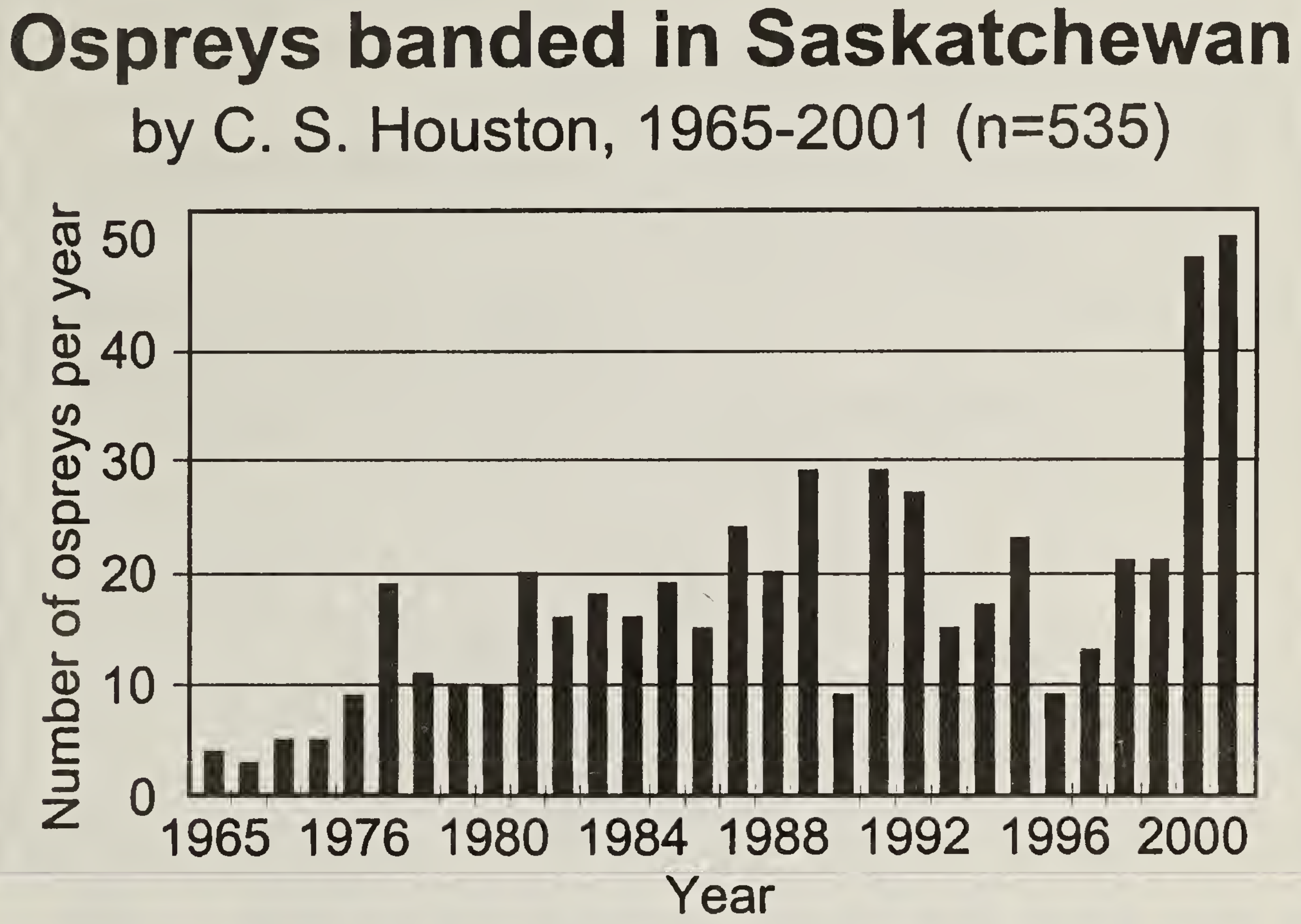


Figure 5. Osprey on platform east of Rosthern, June 2000.

Brenton Terry

Figure 6. Numbers of Ospreys banded each year in Saskatchewan by C.S. Houston, 1975 - 2001



nestlings in 1999, 21 nestlings in 2000, and 25 nestlings in 2001. A record 48 nestlings were banded in 2000 and 50 in 2001 (Fig. 6), the latter including three new sites in trees at Turtle Lake.

2. More important, building the nest platforms with SPC help was a win-win situation for the company, for banders and for Ospreys. Near Hague and Rosthern, SPC has greatly reduced the risk of fire and consequent power outage, and nestling Ospreys are no longer at risk from fire and electrocution. Banders have much safer present and future climbing.

Acknowledgments:

We wish to thank Larry Christie and Bernie Bolens of Saskatchewan Power Corporation (SPC), Regina, for their support. Keith Reeder of the SPC Rosthern office provided the "cherry-picker" and manpower to install the new poles. Ken McComas of the SPC Saskatoon office checked nests along the Brada-Glaslyn power line from the ground on 29 May 2000. Although climbing with spurs is no longer a part of his regular duty, Ken cheerfully spent nearly half a day climbing poles in 1999, and a full day each in 2000 and 2001. Marten Stoffel located the Hague and Rosthern nests on powerlines in 1998. Muriel Carlson and Kevin and Judy Wilkinson located nests near Turtle Lake. Martin Gerard and David Miller rebuilt the nests on the Hague and Rosthern platforms, respectively. Richard Marjan and Kim McNairn of the *Saskatoon StarPhoenix,* Marten J. Stoffel and Brenton Terry provided photographs. Richard Harkness helped locate early references relating to power line usage elsewhere.

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NOTES ON THE STATUS AND DISTRIBUTION OF THE LONG-BILLED CURLEW IN THE ROSETOWN-BIGGAR DISTRICT, SK

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Introduction

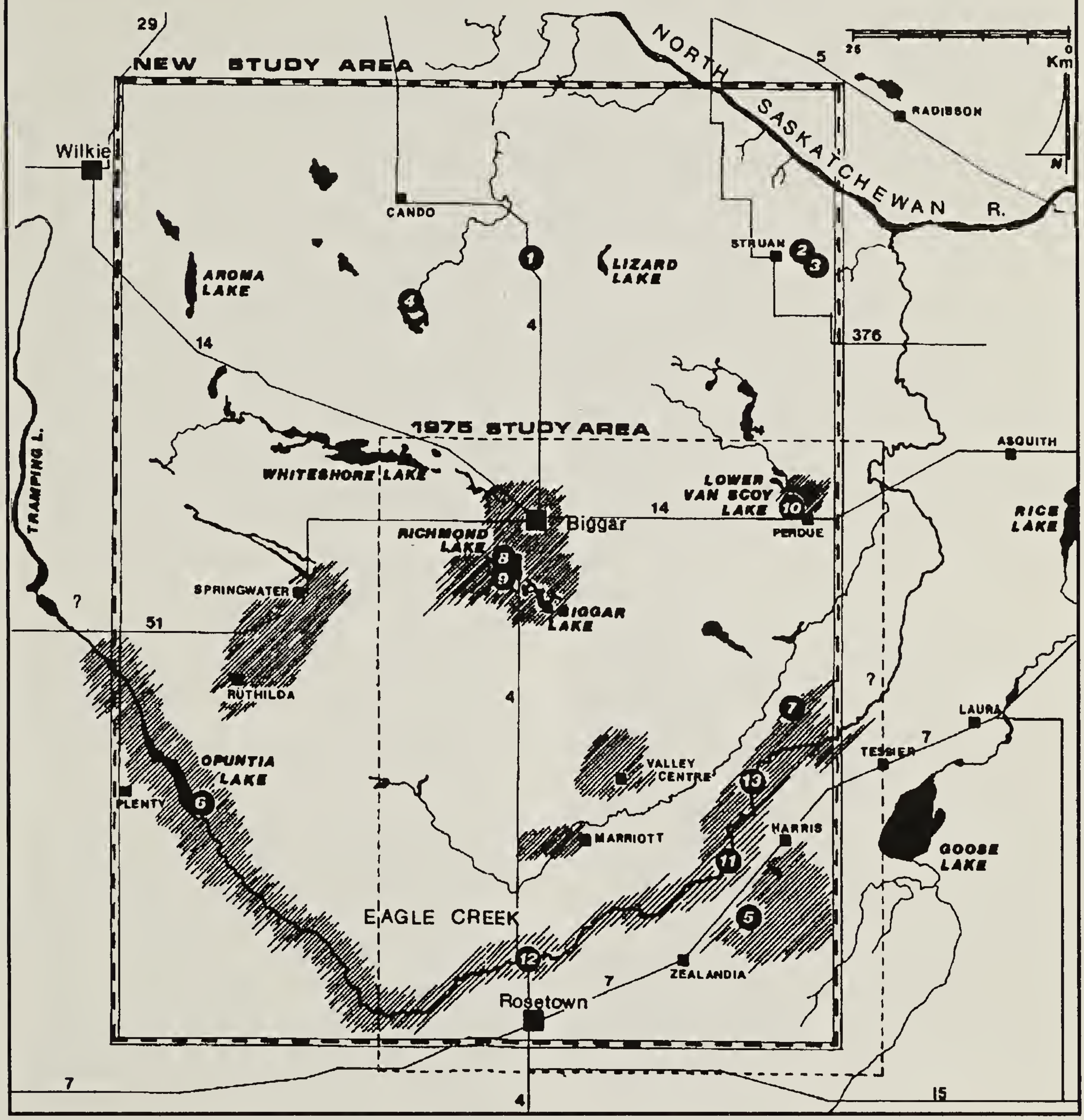
The status and distribution of the Long-billed Curlew in the Rosetown-Biggar area was fully documented up to 1975.[2] Thereafter to 2001, additional records have been collected by Wayne Renaud, and Guy and Robert Wapple from the greater Rosetown-Biggar area. From 1996 to 1999 especially, intensive field work in the newly-extended Rosetown-Biggar area was undertaken for revision of *The Birds of Rosetown-Biggar District, Saskatchewan.* This paper updates the status and distribution of the Long-billed Curlew for the 1975 study area, and further clarifies the species' status west and north of the original study area. Locations of sightings are shown on Figure 1.

Breeding Season Status

Areas north of the original study area

The Struan area, 30 km north of the original study area boundary, is of particular interest because it appears to be the most northerly location for breeding records of Long-billed Curlew in the new area. Also there are historical records for this area by two farmer-naturalists, Ernest and William Jasper, whose parents settled in the Struan area in early 1900s. They began keeping records in 1930s and found Long-billed Curlews to be common breeders throughout the 1930s and 1940s [2]. They noted that curlews had declined drastically by the mid-1970s when William Jasper left the area (William Jasper *fide* Robert Wapple). We are

Figure 1. Rosetown-Biggar District. Cross hatching indicates areas where Long-billed Curlews occur regularly in summer and presumably breed each year



also fortunate to have data from the Biggar Breeding Bird Survey (first conducted by Stan Shadick from 1972 to 1983, and from 1984 to the present by Guy and Robert Wapple). This survey, spanning 28 years and running west-east through Struan, continues the 'information line' left by the Jaspers.

No Long-billed Curlews were recorded on the Breeding Bird Survey until 6 June 1988 when one was found in pasture near the junction of Highway 4 and Lizard Lake Road (#1 on Figure 1). No further reports came from the area until June 8, 1996, when two curlews were seen in a pasture 4.8 km east of Struan (#2). A second Breeding Bird Survey record occurred on 16 June 1999, when one curlew was seen, in the same pasture east of Struan (#3). On 16 August 2001 the senior author located Long-billed Curlews near the north end of Kimoff Lake (#4) further west but at approximately the same latitude as those just described.

Collectively, these four recent records may indicate that the Long-billed Curlew is experiencing a small resurgence into traditional habitats which were vacated as recently as the 1960s and 1970s. However, during several searches of large tracts of prairie, some over 2000 ha in area, north of Perdue, near Aroma Lake, and the extensive pastures abutting the vast alkali flats of Whiteshore Lake, we have failed to find a single curlew!

Within the original study area

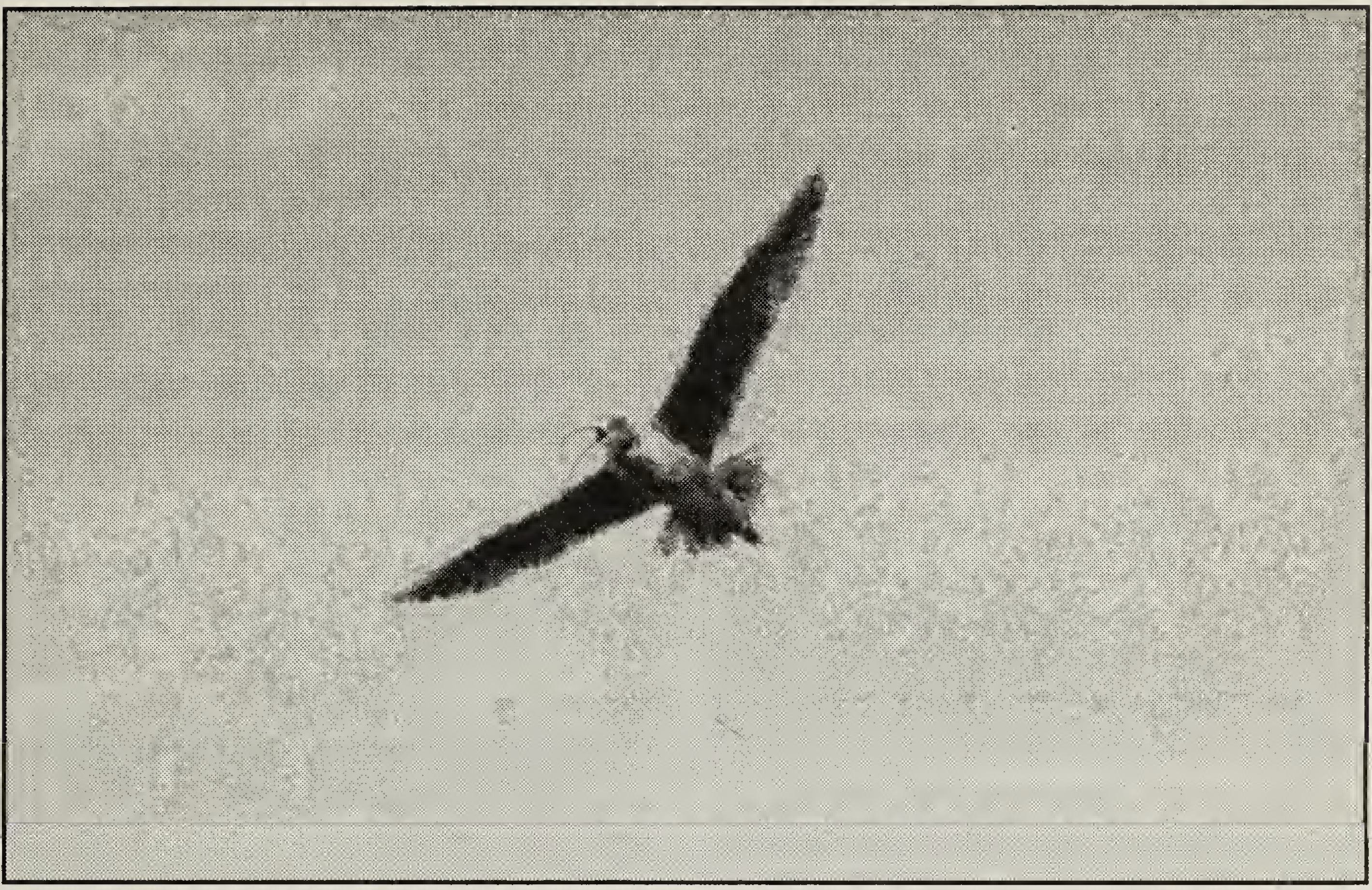
The distribution of the species remains unchanged in the area of the original study and in some areas numbers may be increasing. Long-billed Curlews continue to occupy more or less continuous linear territories along the entire length of Eagle Creek from the upper plateaus adjacent to Opuntia Lake in the west (#6) to the eastern boundary of the study area north of Harris (an estimated 20-25 pairs). Small numbers continue to nest in the extensive prairies north and west of the former hamlets of Valley Centre and Marriott, as well as south of Biggar southwest to ‘Argo Bush’, in the Ruthilda-Springwater Lake area (Duane Neufeldt, pers. comm.), southeast of Crystal Beach Lake (just southwest of Harris), and in the Perdue area.

Long-billed Curlew chick

George Tosh

There have been four occasions when groups were encountered, suggesting that, in June, Long-billed Curlews may at times gather in loose feeding flocks of non-breeders, in loose breeding colonies, or a mixture of both. The first occasion was on 18 June 1978 in a large tract of prairie 8 km southwest of Crystal Beach Lake (#5), when our discovery of two downy chicks elicited a frantic response from nine adult curlews! The second was on 5 June 1997, when during a survey of the southwest shore of Opuntia Lake, Wayne Harris and Wayne Renaud found six adults, in a loose feeding flock in a wet grassy meadow within 50 metres of the shoreline (#6). None of the birds was particularly disturbed by the all terrain vehicles being used and were easily approached to within 10 metres without flushing. Our suspicion, at the time, was that these may have been single birds whose mates were incubating eggs or tending broods on the expansive pasture lands adjacent to the lake.

The third and fourth records, and largest numbers to date, occurred on June 9 and 10, 1998. On 9 June, Wayne and Annie Renaud, while driving on a dirt trail 3 km east and 3 km south of Feudal (#7), encountered a group of cattle which startled at their approach and flushed two Long-billed Curlews and two Marbled Godwits. After stopping the truck and assembling the scope, a cursory look further out on to the field revealed several more curlews. After continually flushing the birds, and having them land at various distances from the vehicle, the count totalled at least 22 adult curlews, with the initial two pairs making the most noise, indicating eggs or young were likely present nearby. The curlews were probably attracted to the stubble field to feed on the abundant crop of grasshoppers. This site is located within one kilometre of an



Long-billed Curlew in flight ***George Tosh***

intermittent creek which drains into Eagle Creek valley.

The following day, 10 June, the authors discovered another group of curlews in a 100 ha pasture 0.5 km north of the north-west end of Richmond Lake (#8). Again, while slowly driving along the dirt trail that follows the section line south towards Richmond Lake, we began flushing a mixed flock of curlews, Willets and godwits from the adjacent prairie and stubble fields. For a full hour, we walked a small portion of the area trying to determine an exact count of the curlews. Finally, at dusk, the birds slowly settled into the adjacent pastures, scattering over virtually the entire area of prairie. After scoping the birds silhouetted against the setting sun, the final shorebird count totalled 25 Long-billed Curlews (24 adults and a single newly-hatched chick), 12 Marbled Godwits and 6 Willets. On a short visit the following day, Wayne Renaud and Frank Roy counted 20 adult Long-billed Curlews in the area. Within a week of this find, three more pairs of curlews, all showing territorial behaviour, were found in similarly heavily grazed pasture between 4 and 6 km south of this location (#9), making a remarkable total of 31 birds in this cluster. On 25 June, Robert Wapple visited the 10 June site and found 12 adult and two juvenile curlews which had just been startled by a coyote approaching 350 m distant. Returning to the same area on 7 July, Guy Wapple spent five hours searching and failed to find a single Long-billed Curlew. Given the existence of adjacent pastures and stubble fields, the curlews had possibly dispersed into other areas distant from the original place of concentration.

To the south, in the Elbow area, Frank Roy reported only one large assemblage in June: a total of 50, (possibly a collection of non-breeders or unsuccessful nesters) on 26 June 1992, in a seeded summer fallow field.[4]

Post-breeding Status

Reports of post-breeding flocks of Long-billed Curlews in August in

Saskatchewan are relatively uncommon.[3] Roy, in the Elbow area, indicated that flocks varying from 5 to 40 have been seen at or near lakes in August; the largest group of 40 was on 15 August 1943 at Luck Lake.[4] Post-breeding flocks of Long-billed Curlews have been recorded in the Rosetown-Biggar District on four occasions. On 29 July 1973, the senior author and Wayne Harris found 5 curlews feeding with a flock of Marbled and Hudsonian Godwits on Lower Van Scoy Lake north of Perdue (#10).[1] The largest count of 90 Long-billed Curlews was found feeding in a dry Foxtail Barley (*Hordeum jubatum*) meadow on the flats of Eagle Creek Valley four km southwest of Harris on 4 August 1978 (#11).[2] On 4 September 1982, Harvey and Annie Renaud recorded a loose flock of 12 feeding on the alkali flats of Eagle Creek north of Rosetown (#12). At dusk on 11 August 2001, a dispersed flock of 43 Long-billed Curlews was feeding in a Foxtail Barley meadow on the flood plain of Eagle Creek east of Valley Centre (#13).

Summary

This paper establishes that the Long-billed Curlew has declined somewhat in numbers since at least 1970, possibly due to loss of habitat. However, a significant number of Long-billed Curlews continue to breed and gather in post-breeding flocks even here, at the northernmost extremity of their breeding range in Saskatchewan.[3] Smith suggested that the entire provincial population may number only 3000 adults.[5] Based on past experience that suggests nesting pairs return to the same territories each year, we speculate that the entire modern population of the Rosetown-Biggar study area numbers approximately 70 to 80 breeding pairs.

Acknowledgements

We thank Robert Wapple, Wayne Harris and Frank Roy for accompanying us on field trips into the area during which many of these records were made. We wish to acknowledge the valuable legacy of bird records which Ernest and William Jasper collected from 1932 to 1975, and Duane Neufeldt who shared his knowledge of Long-billed Curlews from Duperow-Ruthilda area from 1970 to the present. We also acknowledge Harvey and Annie Renaud who continued to record their observations in the Rosetown-Biggar area from 1975 to 1985. Sheila Lamont kindly edited an early draft of the manuscript.

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PROTHONOTARY WARBLER IN WINNIPEG, MANITOBA

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On 12 May 2001 at 9:40 AM, RMU spotted an unusual warbler about 5 m away in the cattails at the edge of the pond at King's Park in Winnipeg, Manitoba. The warbler then flew across the water about 40 m to another cattail patch. We moved around the shore to get a better look from approximately 20 m. It was a warm, sunny day that provided excellent conditions for viewing.

The warbler was yellow from head to breast and had grayish wings without wing-bars. Its undertail coverts and belly were white. The yellowish colour of the back of its head became slightly olive toward and on the back. The bill was blackish and the eye was dark with no eyeline. The bird was a Prothonotary Warbler (Figure 1). The warbler foraged low in the dead cattails, occasionally flying and perching at the top of the cattails before dropping back down. At 10:15 AM, it flew to a small tree on the bank of the pond and perched 4 m high for 2 minutes, after which it flew back into the cattails. We watched and videotaped the bird foraging until 10:50 AM when we left the park.

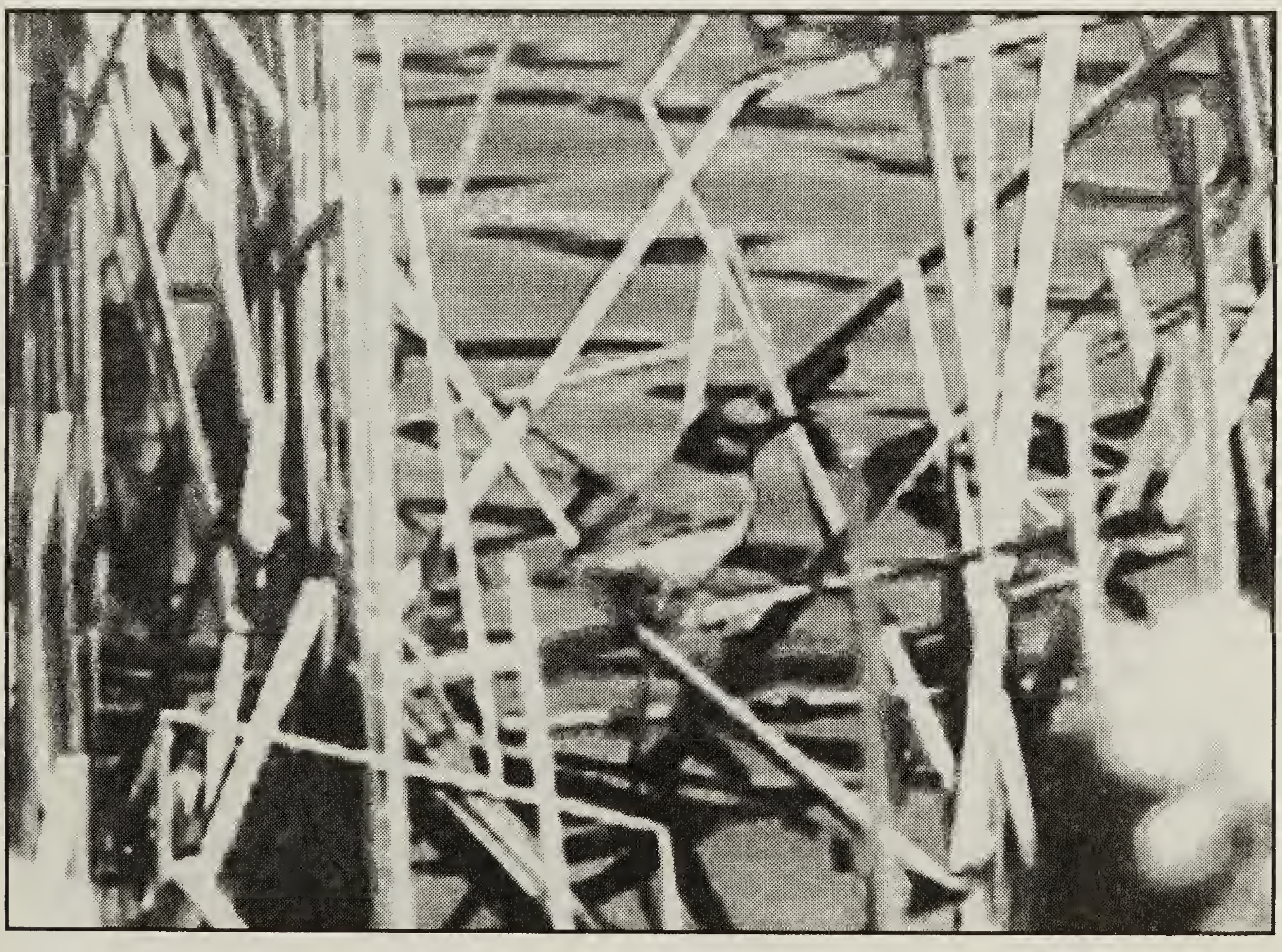

Figure 1. Prothonotary Warbler in King's Park, Winnipeg on 12 May 2001. Photograph from video by T. J. Underwood.

We returned to the park with Spencer Sealy at 12:30 AM and quickly re-located the warbler in the cattails on the west side of the pond. We watched and videotaped the warbler for about 3 minutes from a distance of about 5 m. The Prothonotary Warbler was re-located at 6:45 PM along the bank of the Red River just west of the pond by Ron Austin, Gordon and Jaye Grieef, George Holland, Carolyn Curtis and Red Clarke. The bird was not reported again.

We did not hear the bird vocalize, nor did others who saw it. Initially, we believed the warbler was a female because of its relatively dull appearance. However, the warbler appeared brighter on the videotape and other birders suggested it may have been a first-year male or a female.

There are three previous reports of Prothonotary Warblers in Manitoba. The first bird, believed to be a male, was discovered by Spencer Sealy at Delta Marsh on 17 May 1989 [5] and also was seen by Ronald Bazin and Diane Neudorf (Spencer Sealy, pers. comm.). The second Prothonotary Warbler, a male, was reported by Martin Siepman on 31 July 1990 at Birch Point on Buffalo Bay, Lake of the Woods.[5] Andy Courcelles discovered the third bird, a female or immature male (R.F. Koes, pers. comm.), on 3 October 1997 in St. Adolphe.[6] Only the third sighting was confirmed because the previous two records lacked documentation. Appropriate documentation for a sight record includes any one of the following: a photograph, a videotape, a voice recording, or independently written reports by at least two competent observers.[7] Colour photographs from our videotape will be retained on file with the Manitoba Ornithological Records Committee. This sighting of the Prothonotary Warbler in Winnipeg has been accepted by the committee and is the second confirmed sighting in Manitoba.

Prothonotary Warblers nest in wet lowland forests in the southeastern and central United States and a few areas in southern Ontario.[8] However, the breeding area closest to Manitoba is in the Mississippi River and Minnesota River valleys of southern Minnesota.[3, 2] Prothonotary Warblers are well known as vagrants in much of North America. There are records for several eastern Canadian provinces and numerous records throughout the western United States (over 150 records for California alone!).[1] There are a few sight records from northern Minnesota,[3, 4] at least 1 from northwestern Ontario,[10] and 7 records from Saskatchewan (4 in spring and 3 in fall).[9]

Acknowledgements

We thank J. F. Hare for assistance with the photograph, R. F. Koes and S. G. Sealy for providing information and commenting on this paper, and the others who saw the bird and shared with us their observations.

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PURPLE MARTINS ATTRACTED TO GRASSWOOD

GERALD J. PARENT, RR#5, Station Main, Saskatoon SK S7K 3J8

In 1987, my wife and I moved to an acreage located four miles south of Saskatoon. This location, the old Grasswood Saskatchewan Wheat Pool grounds, is well treed as a result of plantings years ago by my in-laws, Jack and Lillian Briggs.

After retirement in 1995, I put a birdbath in the garden and my wife bought me some bird feeders. In 1998, I put out a metal Purple Martin house with 12 cavities which was given to me by a friend, and four single-cavity super gourds from the Purple Martin Conservation Association (PMCA). That year nothing came.

In 1999 a few pairs of martins visited but none stayed. I read an article about the social attraction method developed by Steven Kress, a Cornell University biologist trying to reestablished Atlantic Puffin colonies. Colonial birds have a strong preference to nest in close proximity to each other and Kress reasoned that if he could trick migrating puffins into believing that former colony sites were active, they would stay and attempt to breed. His technique involved the use of decoys, vocalizations, fake nests and mirrors. The social attraction method is ultimately the art of deception, trickery and manipulation to establish a breeding colony.

I started trying to attract Purple Martins by putting up some wooden Purple Martin decoys. I got decoy plans from the Purple Martin Forum on the internet (www . purplemartin .org) and obtained carving instruction from Leroy Royer, a local bird carver. In 2000, I got plans for a wooden Purple Martin house from a friend and built two with 16 cavities each, and added another three natural gourds, for a total of 51 cavities. I also added mirrors on the front of the houses. The mirrors make the visiting martin believe there are other martins present at the site. I also obtained a Dawnsong CD from the PMCA at Edinboro University in Pennsylvania and began playing the "dawn-song" of the Purple Martin.

Our efforts paid off. We were overjoyed when one martin came on May 16, 2000 and stayed. He in turn attracted an additional seven martins for a total of eight birds. There were three mated pairs and two presumed forlorn bachelors who sang without success, evidently in an attempt to attract mates. We were pleased when the three pairs raised broods (two broods of four and one brood of three) for a total of eleven nestlings. Two eggs failed to hatch. All the young fledged successfully. The last martin was seen at the colony on August 22.

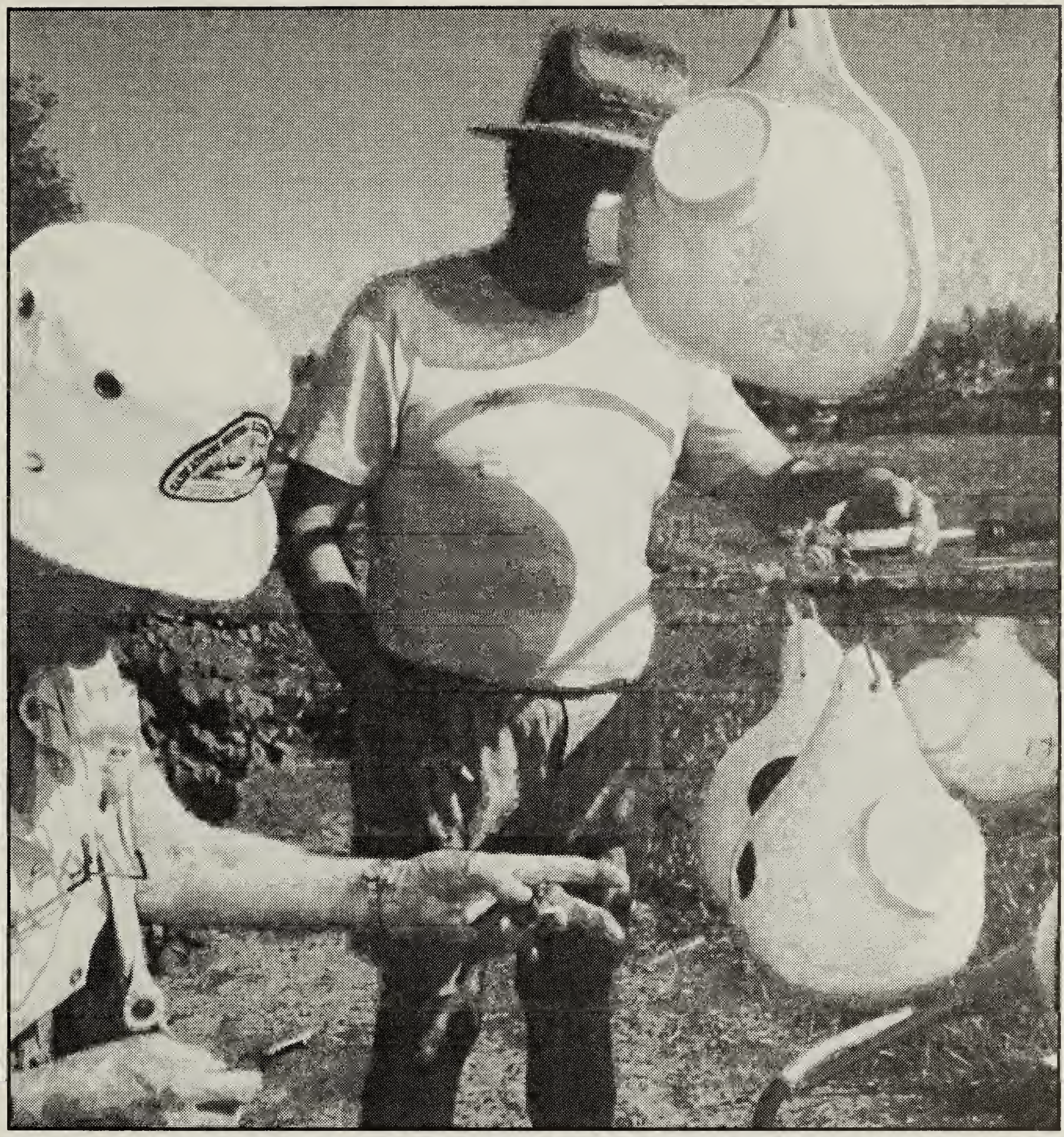
In 2001, I added another seven natural gourds, for a total of 58 available cavities. This year we had great success: 16 martin pairs laid a total of 81 eggs. Three pairs raised 6 nestlings each, six pairs raised 5 nestlings, six pairs raised 4 nestlings, and one pair had 3 nestlings. A total of 75 nestlings fledged successfully. However six eggs failed to hatch. Mary Houston came out to band the hatchlings on July 4, July 12, July 20; and the last brood of only three nestlings on July 31 for a total of 75.

This year, the last of our resident birds left on August 17. A passing flock inspected the premises for a few hours on the morning of August 20. We hope that some of these visitors may have been sufficiently impressed that they will join our colony in 2002. I am ready to give supplemental food to martins arriving early next year if the weather is too poor for them to catch insects. Supplemental feeding has been done successfully by some colony owners in an effort to save their colonies, as Purple Martins will start to die after four to five days without food. I have about 2000 grasshoppers that I caught and placed in my freezer to keep them fresh.

Purple Martins are known to like nest sites near lakes, so this year I built an artificial stream with small ponds and little waterfalls, that runs through the garden. A pump is used to recycle water continuously from the bottom holding tank back to the top of the stream. This has proved to be a great attraction to many other songbirds like Pine Siskins, Cedar Waxwings, American Goldfinches, Northern Flickers, American Robins and native sparrows.

The natural gourds grow in the southern United States on a vine just like pumpkins. Some gourds were given to me by a friend in Florida and the rest were bought in Alabama on my winter travels. The gourds have to be dried for four to five months in order to develop a very hard shell. Then they are drilled with an entrance hole and an access hole and cured by placing them in copper sulfate for about 20 minutes. After they are dry, I attach screw-on caps and paint them white.

For ease of access, each house and each set of gourds can be lowered about ten feet, down to about shoulder height. Each compartment of each house has a removable front panel, and each gourd has a separate screw-on cap near the back, to allow inspection every four to five days after egg laying has started.

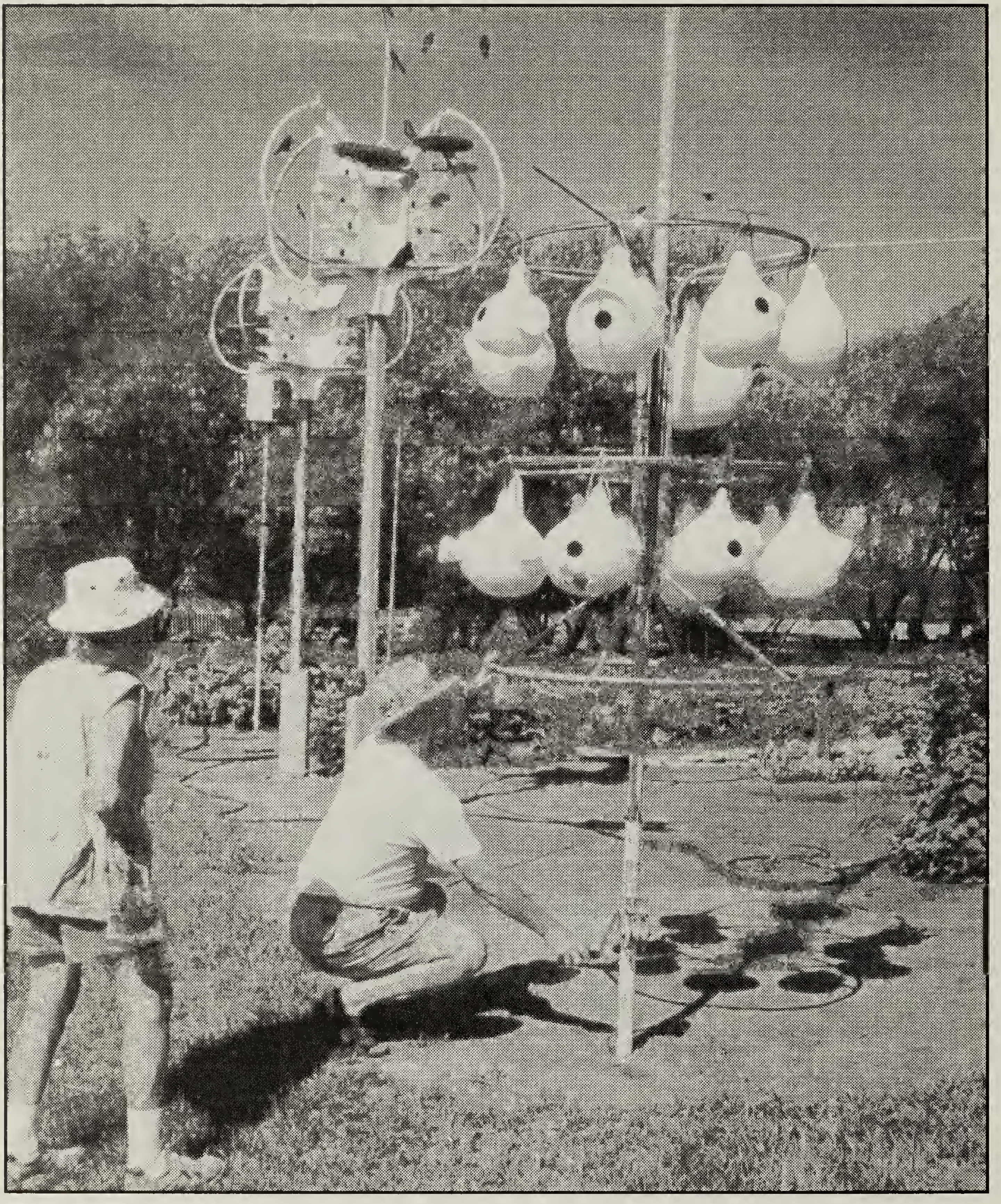


Mary Houston bands a Purple Martin chick. The natural gourds shown here are painted white. Note the small entrance hole and the larger access hole covered with a screw-on cap. ***Jan Tedesco***

All the housing units are stored indoors over winter, and put back out of doors in mid-April before the Purple Martins come back.

I control House Sparrows with the use of a small insert trap that I place in any compartment to catch – unharmed – intruding House Sparrows; when the sparrow steps on the treadle, a small flap covers the hole and traps the sparrow inside the compartment. I then use the sparrow as a decoy by placing it a holding pen in a wire sparrow trap to catch other sparrows. I keep the captured sparrows fed and watered as long as possible.

Before the 1900s, martins nested mainly in natural cavities like excavated woodpecker holes, crevices in scraggly rock faces and natural cavities in old trees, although Native Americans in southeastern North America were providing Purple Martins with gourds for nesting as early as the 1700's.[1] Now



The author lowers the gourds so that bander Mary Houston (left) can reach the young. Martin houses and Purple Martins are in the background.

Jan Tedesco

Purple Martins east of the Rockies nest almost exclusively in colonies of man made housing.

The first record of Purple Martins nesting in the Saskatoon area dates from 1967 at the Patience Lake Potash Plant.[2] Colonial nest boxes have been used in the residential areas of Saskatoon since 1969 and there are some large colonies, each with forty or more pairs, at Shields Townsite on Blackstrap Reservoir and near Clavet.

Acknowledgements

I am grateful to my wife, Bev, for giving me a "keep-busy" retirement project. I would like to thank Stuart Houston for

keyboarding and editing my words, and Mary Houston for coming out to band the nestlings, and my Purple Martin mentors Del Davies and Ken Hoyt. If any readers want to get additional information about Purple Martins, you can contact PMCA at www.purplemartin.org or myself at parent@duke.usask.ca.

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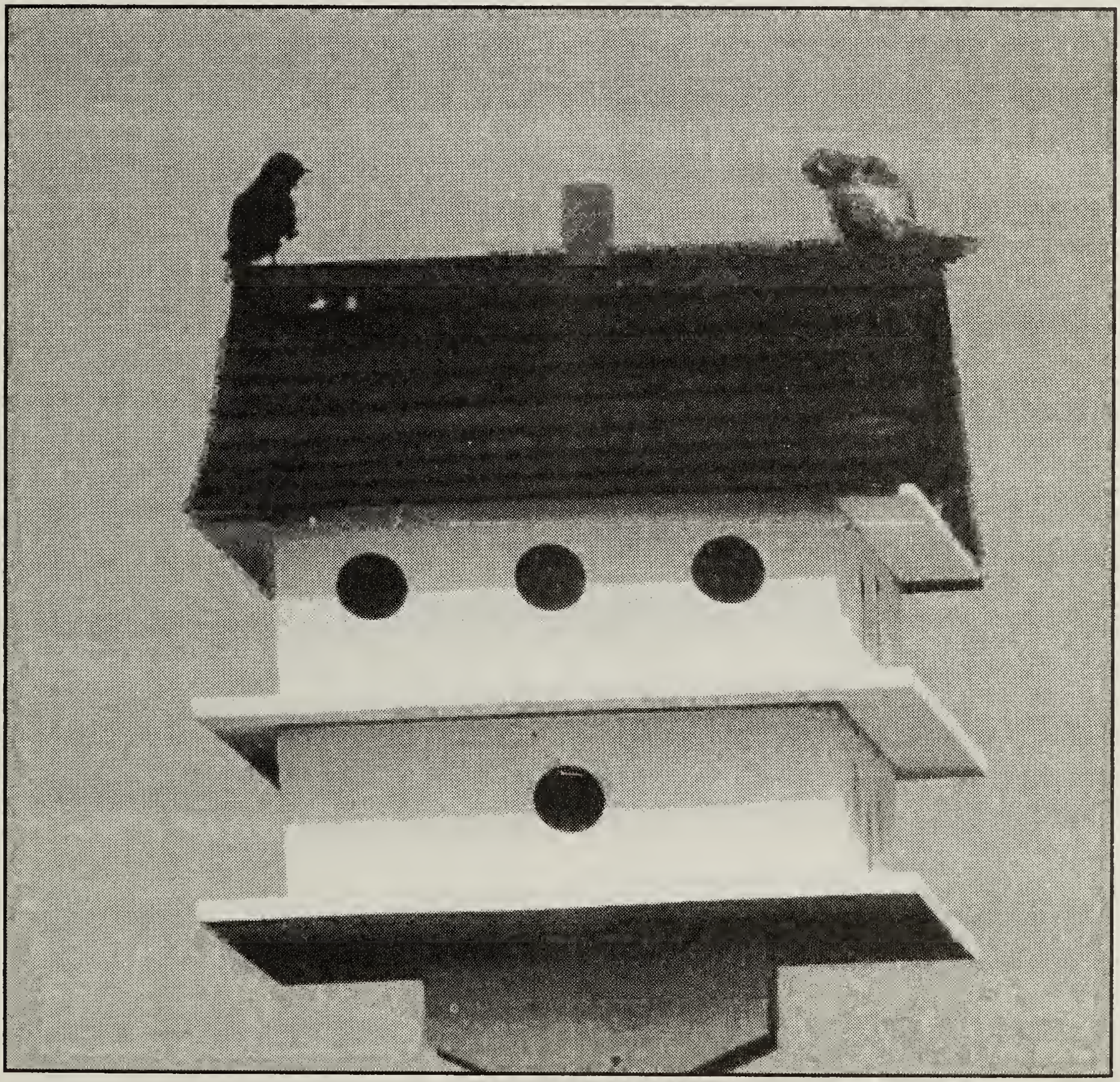


A pair of Purple Martins at their home in Alberta. (Also see page 216).

George Tosh

ECOLOGY

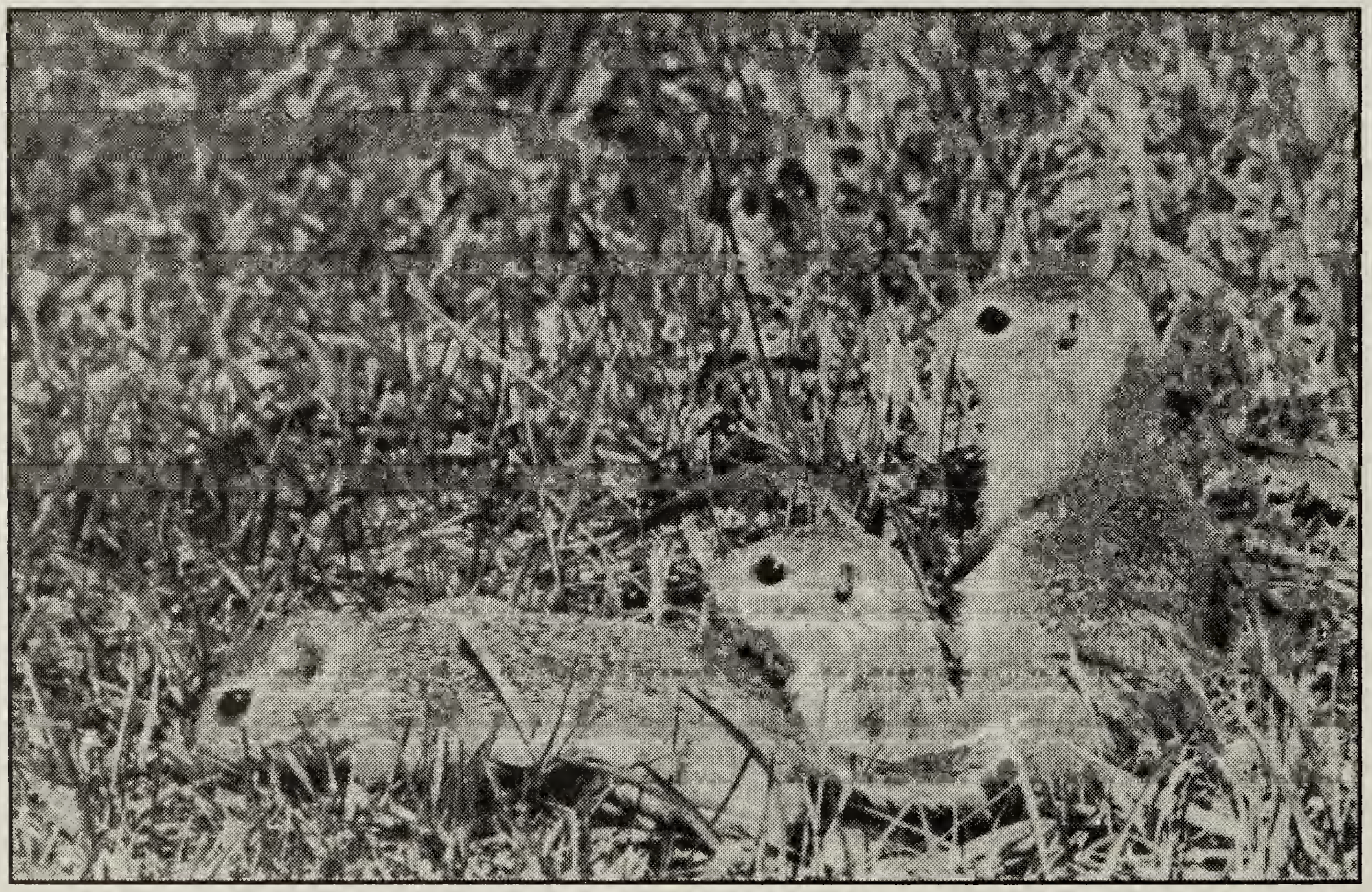
PLAGUE ON THE PRAIRIES

TED LEIGHTON, Canadian Cooperative Wildlife Health Centre, Western College of Veterinary Medicine, University of Saskatchewan, Saskatoon, SK S7N 5B4

It is unexpected news that bubonic plague is alive and well and living on the Canadian prairies, yet such is the case. The same bacterium that caused the Black Death of European history today lives quietly in our own land among mice and fleas, tucked away in burrows and runways beneath the prairie landscape, hidden by the thatch of needle and thread grass and Blue Grama, sheltered under glacial erratics and tipi rings and in the abandoned galleries of pocket gophers. That it lives among us, a part of nature in prairie Canada, is certain. Where and how it lives, exactly, we do not know.

It seems preposterous that we could live side by side with bubonic plague! Why is this not in the papers and on the evening news? But plague was in the news as recently as 1992 when it infected a hunter in nearby Montana, and again in 1987, when it infected another in the same state.[9] And it must have been in the news in 1939 when a farmer and mink rancher near Stanmore, Alberta died of plague. He contracted the disease by cutting himself while skinning his unexpectedly dying mink which he had recently fed an unusual abundance of suddenly dying ground squirrels: all victims of plague.[4]

Plague is a newcomer to our prairie landscape, as new as raccoons and starlings. As far as can be determined,



Young Richardson's Ground Squirrels ***Larry Morgotch***

its native home is on the steppes of eastern Asia. There it was, and is still, a bacterium that lives in a cycle of transmission between several species of small rodents and their fleas. Neither the rodents nor the fleas appear to suffer much ill health when they are infected by the bacterium, known to science as *Yersinia pestis*. So the bacterium persists in these rodent-flea communities as a rather benign parasite. However, many other species of rodent suffer severe and fatal disease when infected with this bacterium, among them ground squirrels, marmots and various species of rats. Some fleas suffer from plague as well. In one common species of rat flea, the bacterium plugs up the digestive system and goads the infected fleas into a frenzy of biting anything warm-blooded, including people, spreading infection with every bite as they attempt to relieve their fatal hunger.[2, 6, 10, 11]

The usual source of infection for people is a bite from an infected rodent flea, and the result, in the absence of antibiotics, is death about 60% of the time. Plague most often is not contagious from one person to another, and each new case arises from a flea bite. But the course of the disease in people is quite variable, and if the victims develop pneumonia during their illness, their every breath and cough become a potent source of infection for other people nearby. Those who become infected by way of such aerosols will themselves immediately develop pneumonia, which is quickly fatal, but which also includes some hours of exhaling the bacterium and infecting others in attendance. Thus, epidemics can result from exposure of many people to infected fleas, as when rats and their fleas in towns and cities acquire plague, or the disease can spread like wildfire from person to person when it takes the form of pneumonia.[2, 6, 11]

The plague bacterium was an early world traveller.[11] Through infection of people who invaded its natural steppe-land habitat, and of the rats and fleas that often accompanied them, it was carried to the coastal cities of Asia as they developed in the last two millennia BC, and then to more distant lands. Plague began its first recorded sojourn in Europe in about 542 AD, arriving on the Egyptian shores of the eastern Mediterranean and spreading west and north as far as Scandinavia. It arrived in a Europe that was severely over-populated and that had, at best, an intermittent social order. Some estimate that plague killed as many as 100 million people in the course of 60 years. The epic poem *Beowulf* is set at about the time when plague arrived in northern Europe, and recounts the devastation of the Danes at the hands of one Grendel, “a fiend out of Hell” who “began to work his evil in the world”.[1] It seems possible that this new unprecedented murderous force, symbolized by Grendel and against which all available defences were ineffectual, might have been plague.

Plague revisted Europe again from about 1350 to 1800, this time arriving on the shores of the Black Sea. Europe was again over-populated, wars still raged and cities had grown large but were without effective sanitation. In the 2-3 years centred on 1350, total mortality of people due to plague was staggering, in the range of 25-70% of regional populations and at least 25% of the total population. Epidemics swept back and forth across Europe for the next 450 years. Plague ended in Europe some time in the early 1800s, and no one really understands why. Its disappearance was coincident with the evolution of a degree of regional economic stability and of new social order brought about by renaissance, reformation, enlightenment, emigration and the effects of plague itself. Despite its devastating march through human populations, plague never found an ecological niche in Europe – no community of wild rodents and fleas among which it could establish a permanent home. It simply disappeared.[10, 11, 13]

The next major expansion of plague out of Asia occurred in the late 1800s. Epidemics developed in southern China in the 1860s and reached coastal cities, including Hong Kong, where in 1894 Alexandre Yersin first determined that this terrible disease is caused by a bacterium, which now bears his name. Its mode of transmission by fleas was discovered only in 1898. Thus, human understanding finally caught up with plague after about 4000 years of close association. Plague and the age of fast steamships arrived in Asian seaports simultaneously in the late 1800s, and, by means of rats on those ships, the disease was quickly transported all over the world - to Africa, and to South and North America, where, on each continent, it found new and hospitable communities of native wild rodents and fleas, and was incorporated into their ecosystems.

Plague became established among wild rodents in North America about 1900, around the busy port of San Francisco where it first was recognized as a cause of death in California Ground Squirrels (*Spermophilus beecheyi*) in 1908. Slowly, it spread eastward, establishing itself here and there across the western mountains and out onto the plains.[6] The impact of plague on these newly invaded ecosystems has never been determined, but some native species, including ground squirrels (*Spermophilus* sp.) and prairie dogs (*Cynomys* sp.), are highly susceptible to the disease. [4, 6] Plague has totally eliminated vast prairie dog colonies extending over many square kilometres, in a matter of weeks.[2, 12] It seems possible that the arrival of plague on the western prairies may have played a role

Meadow Vole ***Juhachi Asai***

in the demise of the Black-footed Ferret (*Mustela nigripes*), a little weasel entirely dependent on prairie dogs as prey and only just rescued from the brink of extinction in the 1980s.[12]

Plague always has commanded the attention of human societies. Its arrival in North America sparked surveys by public health authorities and forays into wild habitats to determine where it is and how it lives.[2, 6] These efforts have provided a partial portrait and natural history of plague in North America. The bacterium appears to infect and persist among several native species of mice and voles – deer mice (*Peromyscus*), meadow voles (*Microtus*) and grasshopper mice (*Onychomys*) for example – among which it lives, as it does on the steppes of Asia, as a parasite certainly, but not an important cause of disease. It lives in communities of these rodents and their fleas in scattered arid environments from the Pacific coast to some uncertain distance out on the prairies east of the Rockies, south into Mexico, north an unknown distance into Canada.

Canadian public health officials initiated surveys for plague in British Columbia and Alberta in 1938, and these were extended to include Saskatchewan and Manitoba from 1939 to 1946.[3, 5] These were not trivial undertakings; 62,369 rodent fleas were collected and tissue samples were taken from 20,212 ground squirrels. These specimens were pooled and inoculated into 2,239 guinea pigs. The plague bacterium was detected in 40 of those 2,239 sample pools, in specimens from British Columbia, Alberta and Saskatchewan. However, after 1946 plague was made less fearsome by the advent of effective antibiotic drugs, and, in western Canada, it was forgotten. The federal Laboratory of Hygiene in Kamloops, from which the plague surveys had been conducted, was closed, its records lost or discarded. No case of plague in man or beast has been recognized in interior Canada since the 1939-46 surveys, except for two Bushy-tailed Woodrats (*Neotoma cinerea*) found dead of the disease near Lillooet, BC in 1988.[8] But plague has not decamped from its new prairie home. A survey of farm dogs conducted in the summer of 1995, in Saskatchewan around the western block of Grasslands National Park and Saskatchewan Landing Provincial Park, and in Alberta around Dinosaur and Writing-On-Stone Provincial Parks, found that about 10% of the dogs in these areas had had contact with the plague bacterium within the previous 4-8 months, probably from hunting wild rodents.[7]

To what extend does plague threaten human health on the Canadian prairies? Probably we have no more to fear from plague than we do from rattlesnakes or lightning, and much less to fear from these than from the hazards of the highway. Yet, as sure as there are rattlesnakes and lightning, there also is plague. In the western United States, 10-20 human cases of plague occur each year, and about 1 in 7 of these is fatal. Most cases occur in the American southwest, among people who live near or within habitat highly favourable to the plague bacterium and its rodent hosts. Until recently, these victims were nearly all from rural areas, but as the suburbs of Santa Fe and Albuquerque have expanded into plague's territory, the number of suburban cases has increased. The major risk factor identified for people is close living with wild rodents, and the major recommendation to reduce risk of infection is to maintain house and yard in a manner unattractive to rodents.[10] In some public parks, the risk of infection for campers and picnickers has been reduced with flea powder, applied to burrow entrances and to the backs of mice, squirrels and chipmunks which visit small bait stations built for this purpose. Residents and visitors to habitat known to harbour plague are advised to use the common sense technologies of high socks, long pants and insect repellent to avoid flea bites as they hike, and not to sleep on rodent burrows.[2, 10]

Public health authorities have not tried to understand where and how plague lives in prairie Canada since 1946. The prairie dweller who seeks medical attention because of general illness, aches, pains and fever is likely to receive a course of antibiotics and to return to good health, but is unlikely to have a blood sample taken for laboratory diagnosis of plague. Thus, we know more about plague in dogs and wildlife in prairie Canada than we do about its risks to people. Do the fringes and suburbs of Kamloops or Kelowna, of Calgary, Lethbridge or Medicine Hat, of Swift Current, Moose Jaw or Regina, or of Brandon brush up against plague? It is clear from American studies that the risk of infection for people is much higher at times when there are outbreaks of the disease among susceptible wild rodents, such as ground squirrels and prairie dogs, than it is in years when such outbreaks do not occur. An example is the severe outbreak of plague that occurred among Richardson's Ground Squirrels (*Spermophilus richardsoni)* in 1939 over an area of at least 370 square kilometres (144 square miles) in the general region of Hanna, Alberta, which took one human life.[4] Yet, with little effort made toward surveillance of plague, the good and bad years in western Canada go unrecognized and neither health authorities nor the public can know when or where risks may be high.

Prairie naturalists are a hardy lot, well schooled in techniques of clothing and bug dope to defend against ticks and mosquitoes, with their noisome bites and sometimes nasty diseases. These practical defences will keep off fleas and plague in like manner. General illness, aches, pains and fever should receive prompt attention from a physician. Such precautions are enough to manage the current risk of plague. But the ecology of plague and the risk it poses to people are dynamic and likely to change with changing conditions. A shift to a warmer climate, for example, is likely to favour plague on the prairies. It also is probable that outbreaks like the one among Alberta ground squirrels in 1939 will, from time to time, occur again, and they will carry with them increased risk of transmission of plague to people. Thus, plague bears watching. The Black Death, though hidden under sweet grass and prairie crocus, is the Black Death, nonetheless.

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> "The Malagasy Republic on the island of Madagascar ranks among the top five countries in the world in terms of *endemism* – the percentage of its total species found there and nowhere else. Roughly 54 percent of its butterflies, 95 percent of its reptiles, 46 percent of its birds, 41 percent of its bats, all of its primates and all of its thousands or so orchids are unique to the island. By the 1990s only 10 percent of Madagascar's original forest cover remained intact and less than 2 percent of its land base had achieved nominal protection."
>
> Stephen L. Buchmann and Gary Paul Nabhan,
> *The Forgotten Pollinators*, 1996. p. 135

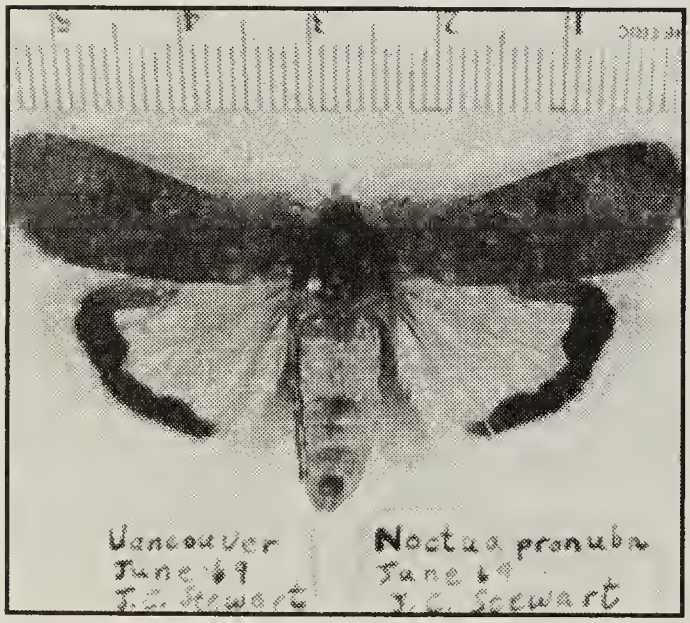
NOTES AND LETTERS

YELLOW UNDERWING (*Noctua pronuba* L.), A NEW MOTH IN MANITOBA

On the evening of September 5, 2000, a fresh specimen of a Yellow Underwing, with yellow hind wings fringed with black, was collected by myself and Kenneth. It was taken a block away from the confluence of two rivers, the Pasquia and the big Saskatchewan River.

The specimen is a bit on the small side by 4 mm when compared with specimens from Belgium and France in the author's collection. The species arrived in Canada only a few years ago and is now reported from widely separated areas. It will be interesting to watch its spread and further establishment in Canada.

- *Walter Krivda*, P. O. Box 864,
The Pas, MB R9A 1K8



Yellow Underwing specimen in the entomological collection at Olds College, AB
Courtesy Ernest Mengerson

[Editorial Note: **THE INVASION OF CANADA BY THE YELLOW UNDERWING (*Noctua pronuba* L.)**

The Yellow Underwing is an old world species of Owlet Moth (Noctuidae). It is a general feeder on a great variety of herbaceous plants. The caterpillar hibernates when it is almost full grown.

The first reported record from Canada was at Vancouver, B. C. in June 1969 by J. C. Stewart and the specimen is in the collection at Olds College, Olds, Alberta (Ernest Mengersen, pers. comm.). We have heard of no other reports for British Columbia, so it is unknown if it has become established there (or if the Edmonton record, referred to below, spread from there).

The next known Canadian specimen was taken at Halifax, N. S. in 1979. By 1998, Donald LaFontaine reported that it had spread from Halifax to central Ontario and Wisconsin.[1] It is now reported to be so plentiful in eastern Canada that they get several inches of this one species in their moth light traps.

The first report of the Yellow Underwing from the Prairie Provinces is the collection from St. Victor, SK by Daniel Glaske at sugar bait on July 26, 2000 and another one on August 29, 2000.

On July 30 and 31, 2000, Gary Anweiler collected the first Alberta specimens of Yellow Underwing in Edmonton, AB. Walter Krivda collected the first Manitoba specimen on September 5, 2000.

The Yellow Underwing is a beautiful addition to our fauna, but it will have to be watched to see if it becomes harmful to gardens or crops. At the rate it is going, it could become plentiful in Saskatchewan in a few years.

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- *Ronald R. Hooper*, Box 757, Fort Qu'Appelle, SK   S0G 1S0]

SWAINSON'S HAWKS OVER THE SOURIS VALLEY

On Friday afternoon, the 28th of September, 2001 while Carol Bjorklund was driving her school bus route, she saw over 80 Swainson's Hawks in a field southeast of Sedley. They were walking about the field feeding on grasshoppers.

The next morning at 10:15 AM below the dam at Nickle Lake southeast of Weyburn, Carol Bjorklund and I counted 1918 Swainson's Hawks flying over the dam in less than an hour's time. The flight was already under way when we arrived. The hawks were going with the first northwest wind that we had noted in the Weyburn area for weeks. The wind was a Beaufort 5 at ground level. The small temperature gauge that we carry read 15° C. The sky was cloudy.

We had been driving along a gravel road that dropped down into the Souris Valley and went south. From this location, 17 - 7 -13 W 2 , we had an excellent view of the hawks as they flew over us in kettles and in straggles. The kettling, an upward swirling on updrafts, gave us the opportunity to count the hawks as they went over.

The hawks stretched out over a half mile - the width of the Souris Valley. Although the banks are hardly noticeable in many places, the differences in height of land built up for the earthen dam, the lake behind the dam, and dry fields below the dam along with the strong northwest wind created the conditions for updrafts to occur. While the topography of the Souris basin may not afford any spectacular cliffs – the basin in the Weyburn area is no more than one hundred feet high on either side of the river's flood plain – it nevertheless may provide enough additional lift for the hawks to ease their way out of Saskatchewan down on through the American plains states to Texas and then over Central America and on to the wintering grounds in Argentina. This topography may be similar to that of the Nueces River west of Corpus Christi, Texas where Paul Johnsgard and others see Swainson's Hawks, Mississippi Kites and other raptors and accipters in mid-September, and where 10,000 Broad-winged Hawks could be counted in one day passing overhead.

When Ron Martin of North Dakota found out over the Internet of our sighting of close to 2,000 Swainson's Hawks in the Souris River Basin, he posted a message stating that the previous largest number of Swainson's, 300, were seen flying south on September 26, 1986 on migration near Sawyer, N.D. where the birds left the southernmost bend of the Souris River and carried on south. Sawyer is southeast of Estevan on a loop of the Souris River that flows into the United States before it heads north into Canada again to join the Assiniboine.

Never before have so many Swainson's Hawks been seen flying in migration at one location in Saskatchewan. Our enjoyment in seeing so many hawks flying south on fall migration, while a chance occurrence, was but one of many such observations along flyways running through the Great Plains. It was our luck to first bring this pathway to the attention of the Saskatchewan birding community.

Johnsgard, Paul, J. 2001. Prairie Birds. University Press of Kansas, Lawrence. p. 65-66..

- *Martin Bailey*, 102 - 1833 Coteau Avenue, Weyburn, SK

MORTLACH'S EURASIAN INVASION

In Mortlach, the year 2001 will be remembered for wind and lack of rain. In our little oasis, i.e. backyard, it will be remembered as the year of the Eurasian Collared-Dove invasion.

It started on June 4. We were experiencing another powerful southeaster and I noticed a large bird sitting on top of a nest box inhabited by a Tree Swallow. The swallow was valiantly trying to get this intruder off his roof.

I grabbed the binoculars to get a better look. It was something we'd never seen before. The bird was cream-coloured with a black neck band and resembled a dove. The closest thing in *Field Guide to the Birds of North America* was a turtle-dove. A cage bird, the turtle-dove sometimes escapes and is found in Miami and Los Angeles. Well, it *was* quite a wind!

I have access to a computer at the local Drop In Centre, so I typed Turtle Dove into the search window and found some web sites that described a "new bird soon to be seen in your area." From this I learned that we had a Eurasian Collared-Dove right in our backyard. The species, native to India, has expanded all over Europe, even into Scandinavia. They were introduced into the Bahamas and migrated without assistance to Florida. Now they have arrived in Mortlach, SK.

On July 22, we noticed two more doves, a pair that was mating. A few days later, I counted four doves at one time. Two of them appeared to be smaller with barely any ring marking and I wondered if these could have been offspring of the mating pair.

We spent many hours watching and listening to the doves. They used our bird bath several times a day and sat in the tall pines in Mortlach's Vimy Park. Usually a magpie arrives in town in the fall. This year it was met with opposition; the Eurasian Collared-Doves chased it. Magpies are the only bird species toward which we observed aggression.

As fall approached, we wondered if the doves would migrate with the Mourning Doves. Surely, we hoped, they would go south before winter came. On October 7, there were seven collared-doves feeding in our yard. They stayed on the ground over an hour. But as of today, October 21, four were at the bird bath and feeder. If they have no migrating instinct, we wonder if they will survive a Saskatchewan winter.

- *Mary Flack*, Box 128, Mortlach, SK
S0H 3E0

SUICIDAL RAVENS?

On June 2, I noticed two separate incidents of parent ravens feeding young on top of beaver lodges. The young (one group of three, one of four) were nearly full grown but could only flap around, not fly. In both cases, they were very noisy, calling incessantly for the two days that I was present. It seems that this would almost be suicidal since the lodges were attached to land, giving predators easy access. This was in the boreal transition zone about 60 km NE of Preeceville.

On June 5, I noticed the same situation 8 km NW of Preeceville in the parkland zone. It was the same scenario with three young and the same incessant squawking. After three days, they were gone. Whether they flew away or were eaten, I am not sure. Has anyone else seen this type of behaviour in ravens?

- *David Weiman,* Box 1000, Preeceville, SK S0A 3B0

SURPRISE ATTACK

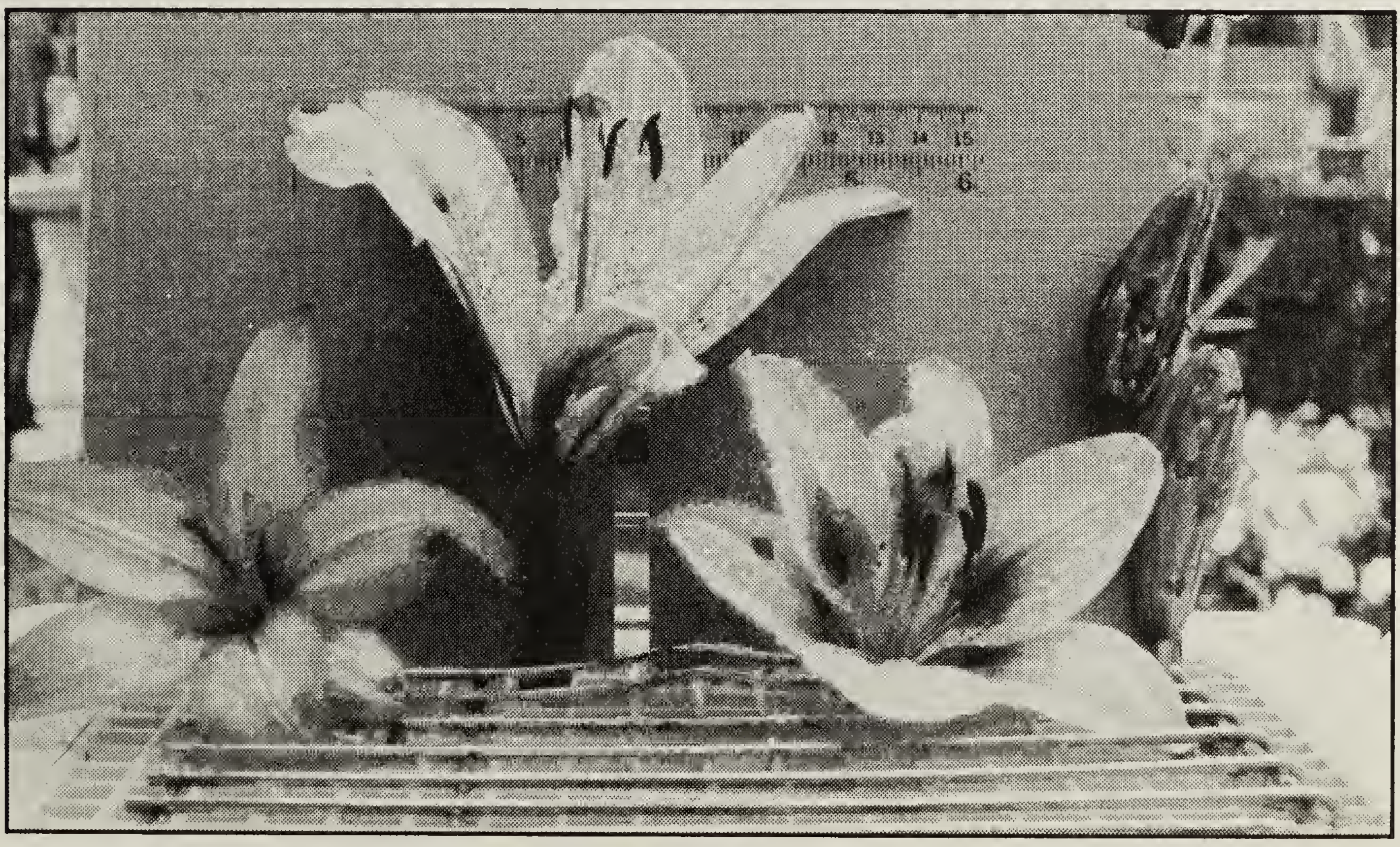
It was the morning of July 9, ten days before the annual Canadian Prairie Lily Show. I looked out my kitchen window and could not help admiring the blaze of colour created by hundreds of lily blooms. I could see many sparrows moving about in the west side of the lily patch, and then realized that they were sitting on the stems of the lilies. At first I thought that there were only two or three dozen.

I didn't want them perched there so I walked down the garden path, clapped my hands and, to my surprise and horror, realized that there were at least a hundred sparrows in the flock. They left abruptly, but had enjoyed a wonderful picnic of lily petals, buds and the odd leaf. The damage was extensive. Many blooms opened bearing huge holes and torn petals. A few of the leaves were damaged as well. Our entries in the Lily Show were limited.

This invasion by my former friends – the cute and interesting sparrows – was a total surprise. We had never witnessed them sitting on the stems previously. Many kept returning to the lilies, although installing a scarecrow seemed to help some.

Perhaps *Blue Jay* readers can offer an explanation and a solution for next year.

- *Nellie Dunville*, 1329 - 12th Street East, Saskatoon, SK S7H 0E5



Lily flowers damaged by sparrows. ***Stan Dunville***

HOUSE SPARROW SWIFTLY KILLS AND EATS CATOCALA MOTH AT THE PAS, MB

It is well known that birds eat insects, but it is poorly known which insects are eaten by which birds. Many insects are avoided by birds due to bad taste. It was therefore a bit of good luck when I saw a large moth (*Catocala relicta*) fall from a shop window to the ground. It was instantly attacked, cut to pieces and eaten in under two minutes by a House Sparrow. The entire event was unbelievably swift. Only the head with antennae attached and the legs were left lying on the ground. The sparrow flew off with the abdomen of the moth after the moth was swiftly pecked apart. I was able to view the entire event from behind a parked car.

This large underwing moth, covering most of one's palm, is most often called the white underwing moth (or relict underwing). It has peaks in abundance and was abundant in The Pas area in 1961. There is a good series of specimens in the writer's collection. It's not mentioned in the literature that this moth has a bluish tinge to it – particularly the underside if viewed under good light and at a certain angle.

Many insects are taken on the wing very rapidly by birds. This occurs so swiftly as to be invisible to the human eye.

- *Walter Krivda*, P.O. Box 864, The Pas,
MB R9A 1K8

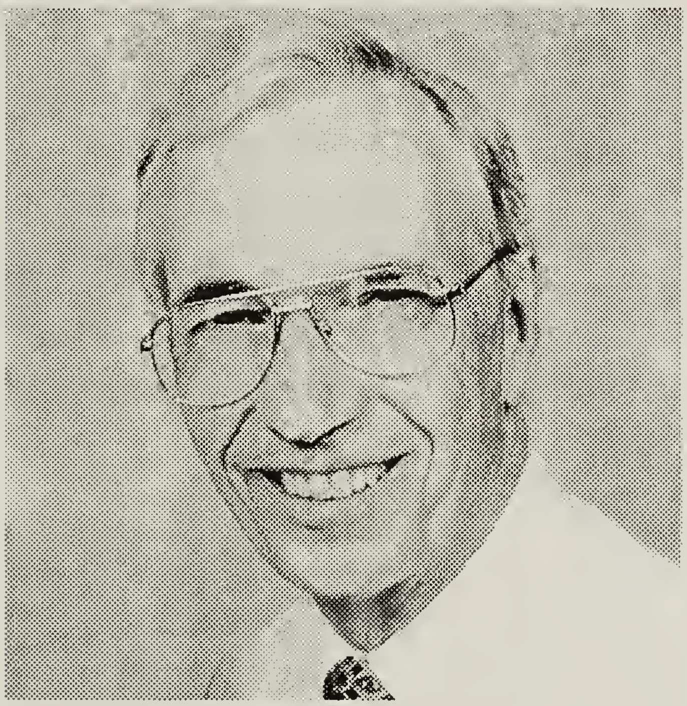
* * *

Fox Squirrel who appeared for three days at a bird feeder in Regina. Photograph taken on 4 December 2000 by Diether Peschken

IN MEMORIAM

GARTH C. NELSON, 1929 - 2001

C. STUART HOUSTON, 863 University Drive, Saskatoon, SK S7N 0J8



Garth Nelson, the youngest of four brothers, was born to Vera and Maurice Nelson on November 24, 1929, at Chaplin, Saskatchewan. The family farm was on a ridge of poor land 18 miles south of town. Garth's father, Maurice, had homesteaded in 1909, lost his first wife in 1918, lost his barn to a lightning strike in 1923, lost his crop to hail in 1926 and to frost in 1927, then had his farm implements repossessed by the implement company after they were five-sixths paid for. Unable to continue farming in one of the most severely drought-stricken parts of the province, in 1932 Maurice took a homestead for the second time, this time in the bush south of Porcupine Plain. Almost their only income was cutting and selling cordwood. They had more moisture but many fewer acres to cultivate. They moved back south to manage a different farm not far from the one they had left, arriving in the driest year of all, 1937. Maurice next tried farming north of McGregor, Manitoba, from 1941 to 1944, but eventually gave up and built a house in McGregor. Here Garth went to high school while Maurice earned his living building houses for others.

Garth attended United College in Winnipeg. His first pastoral charge with the United Church was in Flin Flon, Manitoba. He married Lillian Parsons in 1961. After he obtained his master's degree at Boston University, he was the minister at the mining town of Balmertown near Red Lake, Ontario. Both sons, Rob and Greg, were born in Red Lake. Garth also flew out to neighboring Indian reserves. His next ministries were in Thornhill, London and Ottawa, Ontario. In 1984 Garth and Lillian began an eight-year joint ministry at Grosvenor Park United Church in Saskatoon, retiring in 1992.

Garth was a modest, unassuming, kind, caring man but intense in his convictions; a man of integrity with high principles; a dedicated conservationist. In his post-retirement career, especially, Garth became a keen birder and a tower of strength in nature organizations in Saskatoon and in Saskatchewan. As president of the Saskatoon Nature Society, 1994 to1996 he did a superb job. In the Saskatchewan Natural History Society (Nature Saskatchewan), Garth was Chair of the Environmental Committee, 1994 to 1999. For this he was awarded the society's Volunteer of the Year Award, 1999. He was the only new Fellow of the Society to be named at the annual meeting of Nature

Saskatchewan in 2000. The Meewasin Valley Authority presented Garth with the prestigious Meewasin Conservation Award in December 2000.

I thank Greg Nelson for permission to use the following two paragraphs from his eulogy for his father read at the funeral.

“He was fascinated, invigorated, and inspired by the natural world: from his study and appreciation of orchids, to his ardent bird-watching. He would pull the car suddenly onto the shoulder and screech to a stop if he saw something, reach under the front seat for the binoculars..... when he walked in the forest, he was scanning the tree-tops, his feet somehow finding their way over stones and roots. In his retirement, he transformed this love of nature into a passionate campaign for conservation of the environment. A “ministry of eco-justice.”

“He committed himself thoroughly to every task. If he said he would do something, he would do it. And he would do it well. He was a man seemingly incapable of guile. He provided an example of what it meant to be painfully honest, to be full of integrity, to have beliefs and stand by them, and act upon them. It was never enough for him to talk about problems. He always worked to educate, and to create solutions.”

After developing symptoms involving speech impairment, Lillian was diagnosed with Amyotrophic Lateral Sclerosis (Lou Gehrig’s disease) in 1998 and Garth cheerfully provided her with 24-hour care, seven days a week until her death in April 2000. While caring for his wife, Garth himself developed a speech impediment as a result of a brain tumor. The tumor did not expand rapidly as most brain tumors do and did not cause increased pressure and headaches but eventually led to his death on September 15, 2001. Even in his final weeks, Garth enjoyed being pushed around the neighborhood in his wheelchair, watching for birds. He was only in hospital for four days before his death.

When Garth took six weeks of radiotherapy for his brain tumor, I was his Monday driver. Once on our way out, on the elevator, by good fortune, his radiotherapist took time to tell me, in Garth’s presence, how very pleased he was with the response of his tumor. This chance exchange boosted Garth’s spirits enormously. Each week I was amazed at how consistently cheerful he was, a master of Positive Thinking.

Garth can be an exemplar to us all. His deep concern for the environment, his strength of spirit, and his cheerfulness under great adversity, should be an inspiration.

“Where rivers, creeks, canals, or roadsides go generally their way, the wanderers (as monarchs are also called) follow them. Here is water, here is nectar, here the likelihood of the sought-after herbs. Watercourses deliver them to milkweed grounds : fields, pastures, meadows, banks and bars; roads lead to parks and gardens and vacant lots, where few milkweed plants are likely to go undiscovered by *Danaus* in a good year.”

Robert Michael Pyle, *Chasing Monarchs.* p. 4

NATURE SASKATCHEWAN NEWS

The following awards were presented at Nature Saskatchewan's Fall Meet in 2001: **Fellows Award** to Carman Dodge and Bill Sarjeant, **Conservation Award** to Peter Kingsmill, **Volunteer of the Year** to Nancy Allen, **Cliff Shaw Award** to James K. (Kerry) Finley and **Larry Morgotch Award** to Dale Hjertaas.

Conservation Director, Attila Chanady provided *Blue Jay* with the following comments from his presentation of the Conservation Award at the meet.

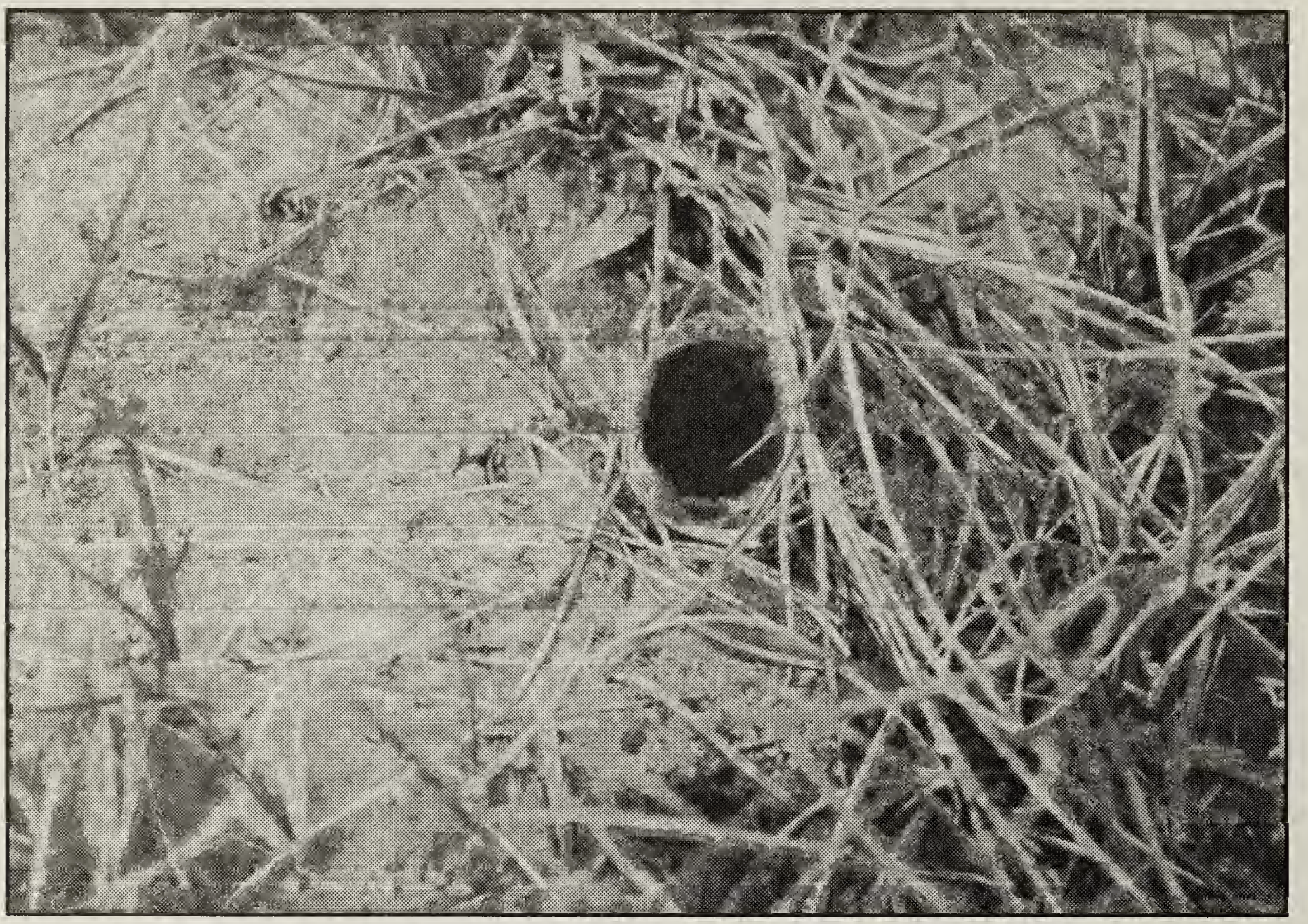
Peter Kingsmill is a dedicated conservationist, who, with his unflagging energy, creativeness and passion, has contributed perhaps more than anyone else to the development of the Redberry Pelican Project, begun in 1989, and later to the efforts made to achieve the designation of world biosphere reserve for the Redberry Lake area. All those years he campaigned ceaselessly to stop commercial resort development near the lake, to raise the profile of the sanctuary, and to promote the idea of conservation in the community of Hafford. He was also one of the driving forces behind the creation of an interpretive centre at Redberry Lake.

Peter was one of the six original founders and the first president of the Saskatchewan Watchable Wildlife Association, which later evolved into the Ecotourism Society of Saskatchewan. During his involvement with these organizations, he played a significant role in the development of an ecotourism strategy, an ecotourism accreditation process, and a system of designating and monitoring ecotourism sites in Saskatchewan.

◆

American White Pelicans ***Wayne Lynch***

MYSTERY PHOTO



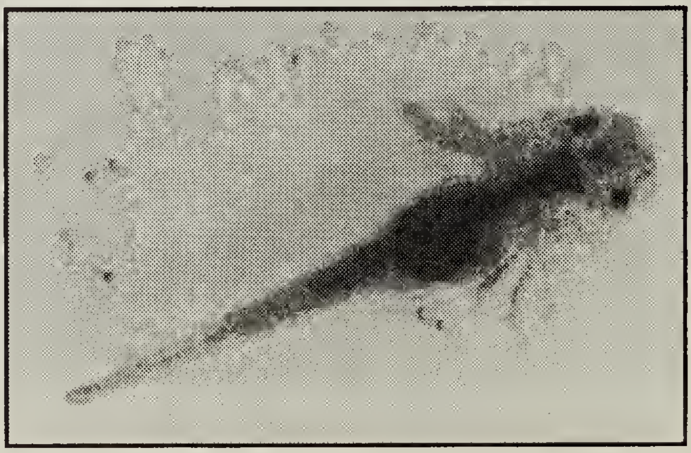
DECEMBER 2001 MYSTERY PHOTO

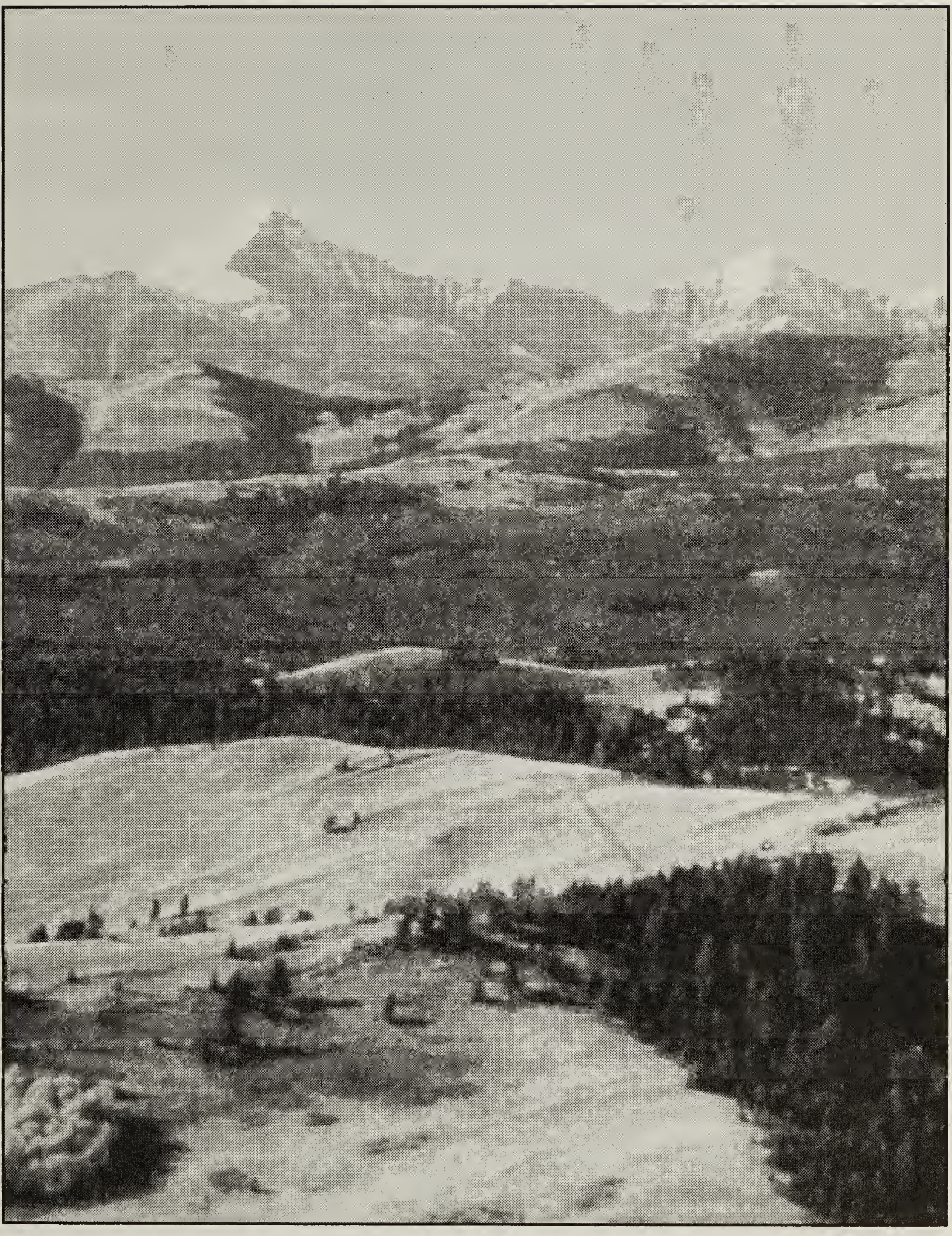
This mystery photo shows a hole in the ground, about 1.5 cm in diameter and 30 cm deep. At the surface of the ground, the opening is edged with plant material glued together. This hole was photographed in sandy soil near Leibenthal, SK on 17 May 2001. No tracks led into or out from the entrance, and nothing was visible inside it. Who makes these holes?

Answer to September 2001 MYSTERY PHOTO

The "wee beast from the slough" is a larval Tiger Salamander (*Ambystoma tigrinum diaboli*). This one, recently hatched from the egg, is 1 cm long. The 'frills' around its head are external gills used for gas exchange and are reabsorbed during metamorphosis to the adult form. (Salamander young begin developing lungs soon after their limbs form but they use them primarily for controlling buoyancy until shortly before metamorphosis.) Salamanders are carnivorous throughout life whereas frog tadpoles are primarily plant (especially algae) eaters and frogs eat insects.

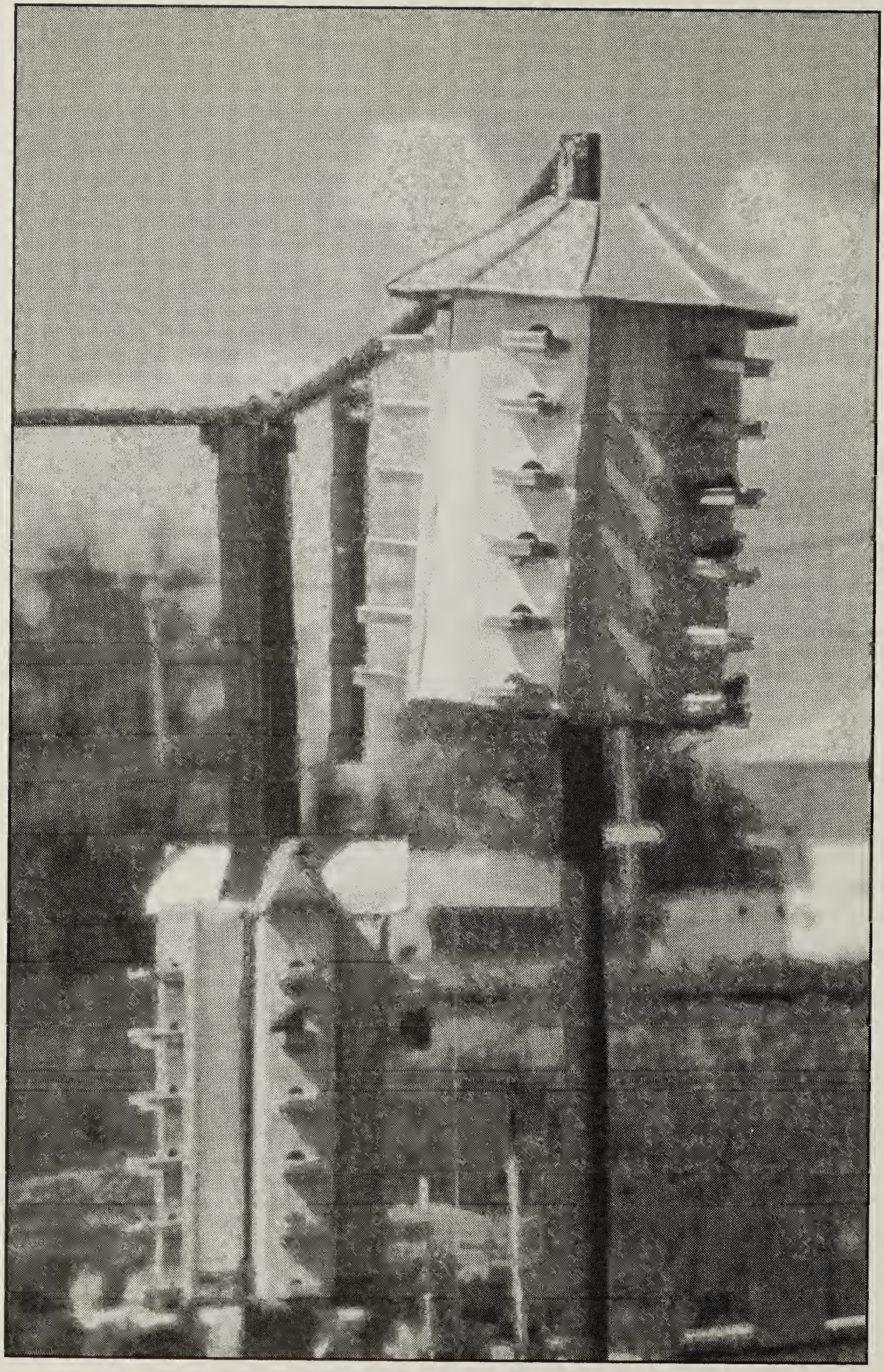
The editors would like to thank Danna Schock for providing the mystery photo and the information about Tiger Salamanders.





Looking west from the Whaleback Ridge area in Alberta.

Teresa Dolman



Purple Martin highrise near Prudhomme, SK.

George Tosh

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